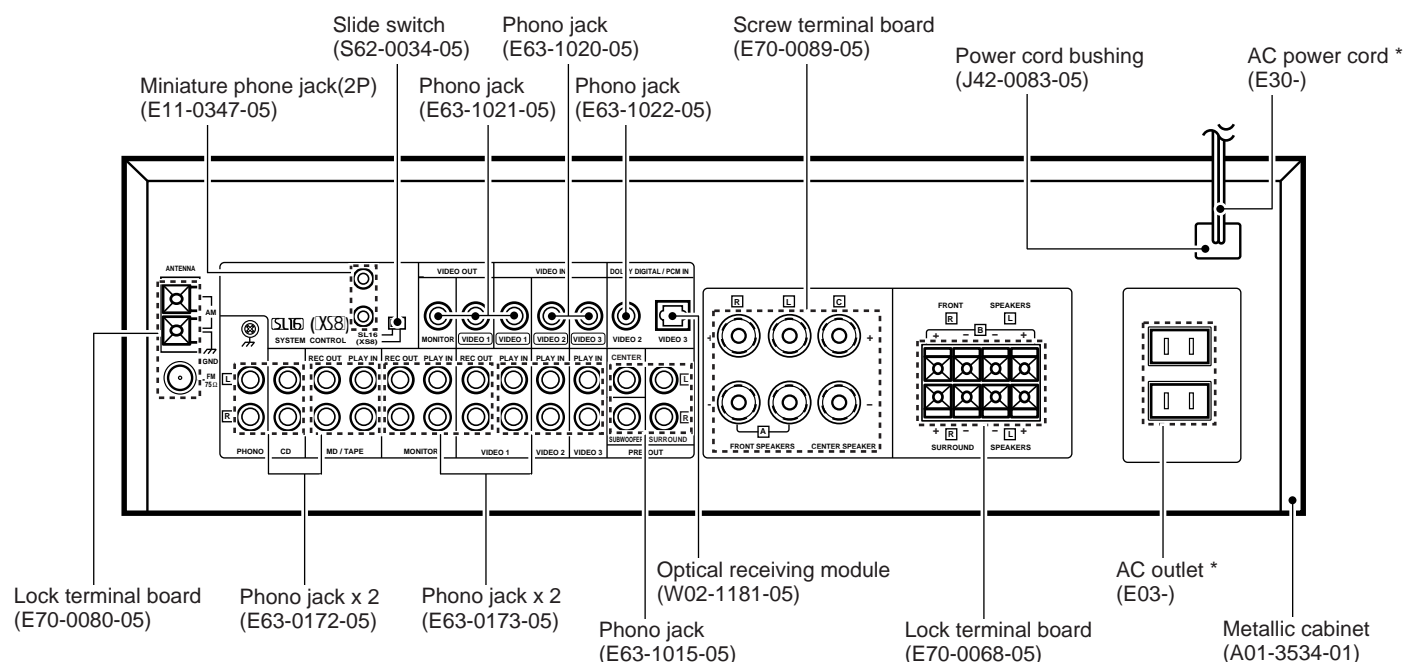
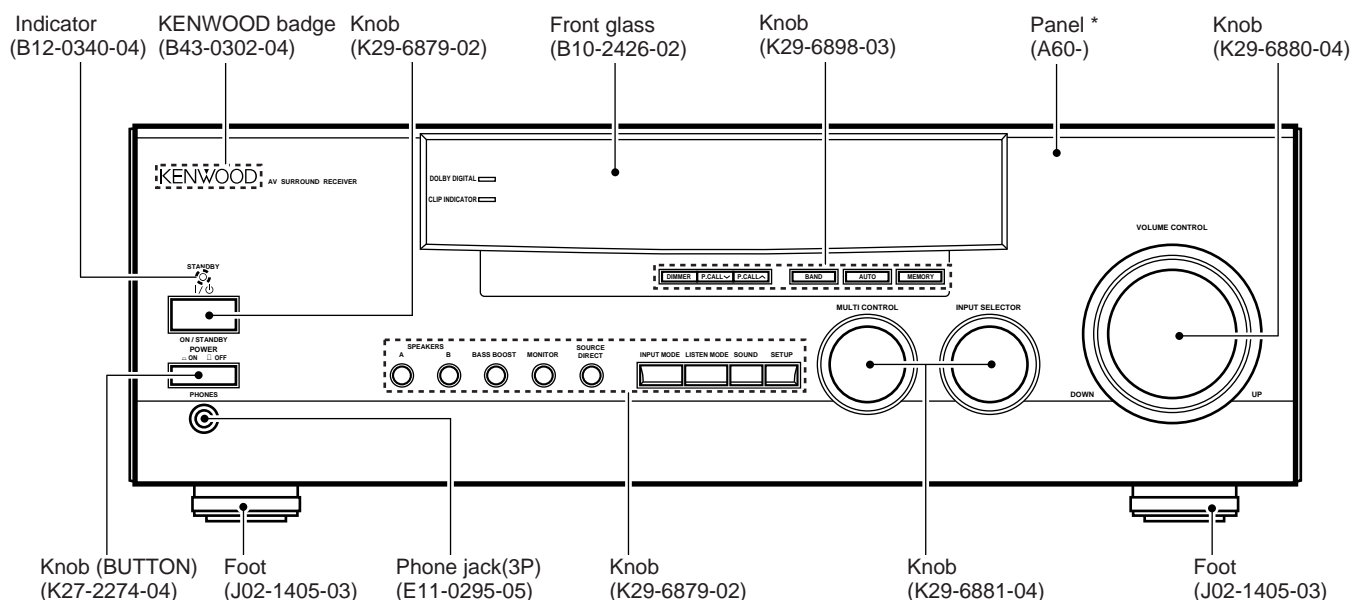


KRF-V7510D/VR-208 KRF-V8010D/VR-209 SERVICE MANUAL

KENWOOD

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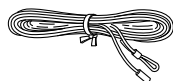
CONTENTS / ACCESSORIES

Contents

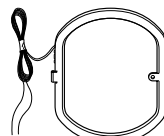
CONTENTS / ACCESSORIES	2	PC BOARD	12
CONTROLS	3	SCHEMATIC DIAGRAM	17
DISASSEMBLY FOR REPAIR	5	EXPLODED VIEW	31
BLOCK DIAGRAM	6	PARTS LIST	32
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ADJUSTMENT	11		

Accessories

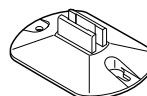
FM indoor antenna (1)
(T90-0810-05)



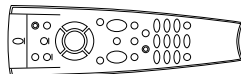
AM loop antenna (1)
(T90-0833-05)



Loop antenna stand (1)

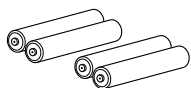


Remote control unit (1)
(A70-1194-05) : KP1Y1K1P2Y2M1
(A70-1195-05) : V

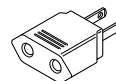


Battery cover (A09-0366-08)

Batteries (R03/AAA) (4)



*AC plug adaptor (1)
(E03-0115-05)



(Accessory only for regions where use is necessary.)

*Use to adapt the plug on the power cord to the shape of the wall outlet.

Resetting the Microcomputer

If the microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

For U.S.A. and Canada

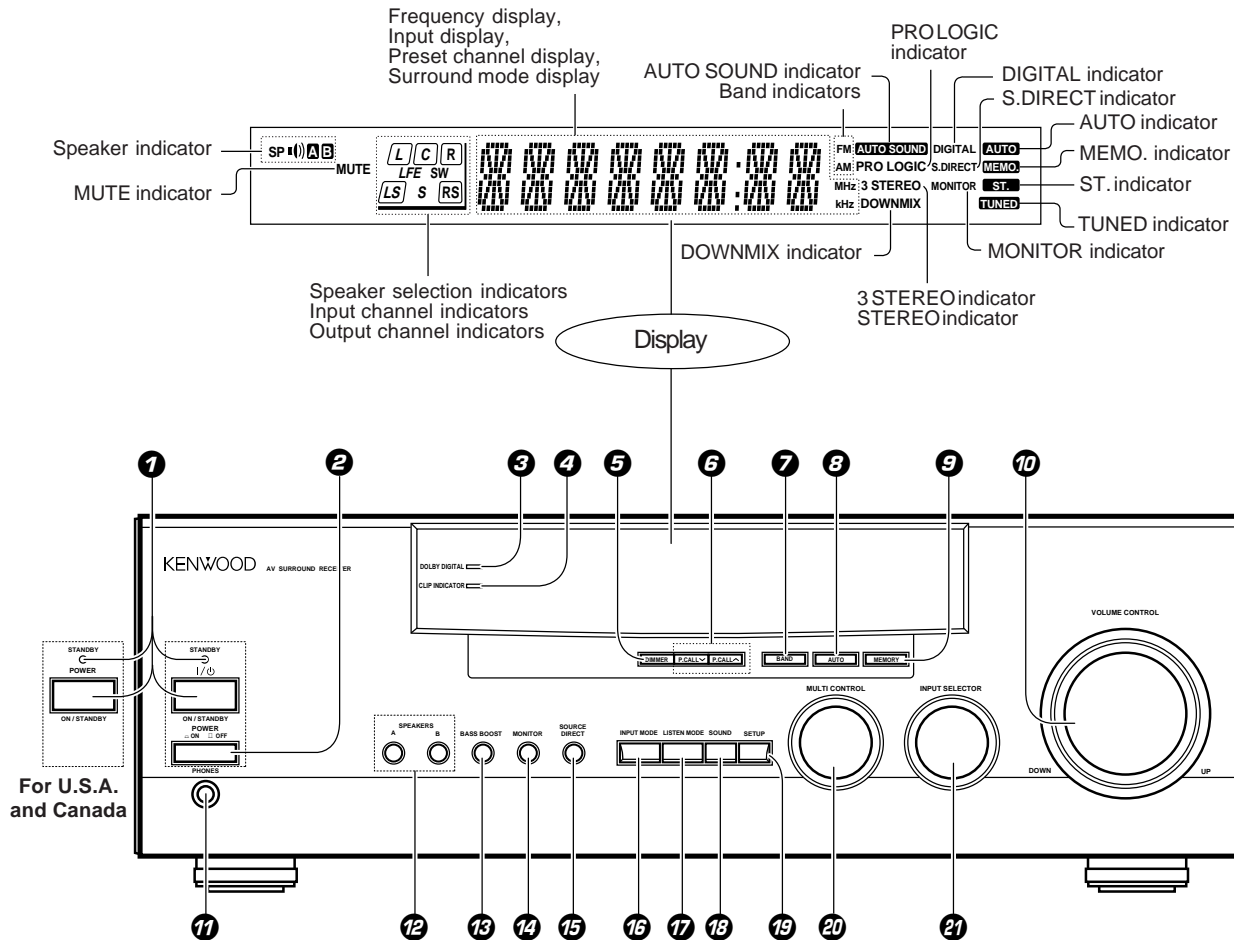
Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER key.

For other countries

With the power cord plugged in, turn the POWER key OFF. Then, while holding down the ON/STANDBY key, press POWER.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

CONTROLS

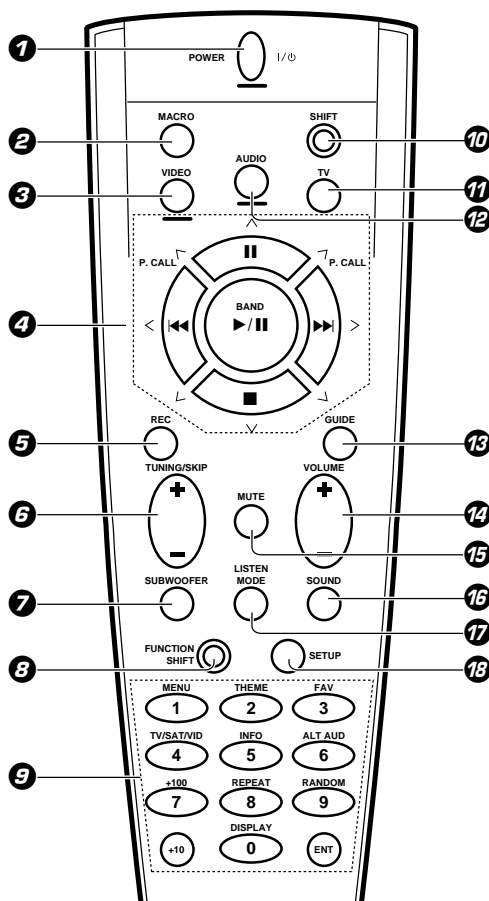


- | | | |
|---|--|--|
| <p>1 POWER key
(For U.S.A. and Canada)
Use to turn the power ON/OFF.</p> <p>STANDBY indicator</p> <p>1 ON/STANDBY (I/ϕ) key
(Except for U.S.A. and Canada)
Use to switch the power ON/STANDBY when the POWER is turned ON.</p> <p>STANDBY indicator</p> <p>2 POWER key
(Except for U.S.A. and Canada)
Use to turn the main power ON/OFF.</p> <p>3 DOLBY DIGITAL indicator
Lights when the receiver is in the Dolby Digital mode.</p> <p>4 CLIP INDICATOR
Lights when the input signal is too large to be handled by the receiver, and "clipping" is occurring.</p> | <p>5 DIMMER key
Use to adjust the brightness of the display.</p> <p>6 P.CALL keys
Use to call up previously registered radio stations.</p> <p>7 BAND key
Use to select the broadcast band.</p> <p>8 AUTO key
Use to select the auto tuning mode.</p> <p>9 MEMORY key
Use to store radio stations in the preset memory.</p> <p>10 VOLUME CONTROL knob</p> <p>11 PHONES jack
Use for headphone listening.</p> <p>12 SPEAKERS A/B keys
Use to turn the speakers ON/OFF.</p> <p>13 BASS BOOST key
Use to select the maximum adjustment setting for the low frequency range.</p> | <p>14 MONITOR key</p> <p>15 SOURCE DIRECT key</p> <p>16 INPUT MODE key
Use to switch between the digital and analog inputs.</p> <p>17 LISTEN MODE key
Use to select the listening mode.</p> <p>18 SOUND key
Use to adjust the sound quality and ambience effects.</p> <p>19 SETUP key
Use to select the surround sound settings.</p> <p>20 MULTI CONTROL knob
Used to make a variety of settings.</p> <p>21 INPUT SELECTOR knob
Use to select the input sources.</p> |
|---|--|--|

About the STANDBY indicator

This unit has a STANDBY indicator. When the STANDBY indicator is lit, the unit consumes a small amount of power to preserve the memory. This is called STANDBY mode. This mode also lets you turn the power ON using the remote control.

CONTROLS



There are some cases in which keys (or knobs) that have the same function on the receiver and on the remote control have different names. In the instructions of this manual, if the names of corresponding keys (or knobs) on the receiver and remote control are different, the name of the remote control key is indicated in parentheses.

1 POWER key

Use to turn the receiver on and off.
Use in combination with the input selector (AUDIO, VIDEO, or TV) keys and SHIFT key to turn various components on and off.

2 MACRO key

Use in combination with the AUDIO, VIDEO, or TV keys to execute a series of commands automatically (MACRO PLAY).

3 VIDEO selector key

Selects the video inputs and sets the remote control to operate the component registered at the respective input.

4 Multi control keys

Use to operate the selected component.

5 REC key

Use to operate the selected component.

6 TUNING/SKIP key

Use during the setup procedure to specify various settings. Use to operate the tuner or selected component.

7 SUBWOOFER key

Use in combination with the VOLUME +/- keys to adjust the volume of the subwoofer.

8 FUNCTION SHIFT key

Use in combination with the numeric keys to execute alternate commands.

9 Numeric keys

Provide functions identical to those of the original remote control supplied with the component you are controlling. To access the functions printed above the keys, press within 3 seconds of pressing the FUNCTION SHIFT key. Function availability varies for each component.

10 SHIFT key

Use in combination with the AUDIO and VIDEO keys to change the remote control mode without changing the input selector or in combination with the POWER key to turn on and off components programmed into the remote control.

11 TV selector key

Sets the remote control to operate a TV or cable box. This key does not change the input selector on the receiver.

12 AUDIO selector key

Selects the audio inputs and sets the remote control to operate the respective KENWOOD audio component.

If you connect audio components from KENWOOD and other makers to the MD/TAPE or CD jacks, you can set the remote control to operate these components by registering the appropriate setup code at the respective input.

13 GUIDE key

Use to activate the OSD menu functions of registered components.

14 VOLUME key

Use to adjust the receiver volume.

15 MUTE key

Use to temporarily mute the sound.

16 SOUND key

Use to adjust the sound quality and ambience effects.

17 LISTEN MODE key

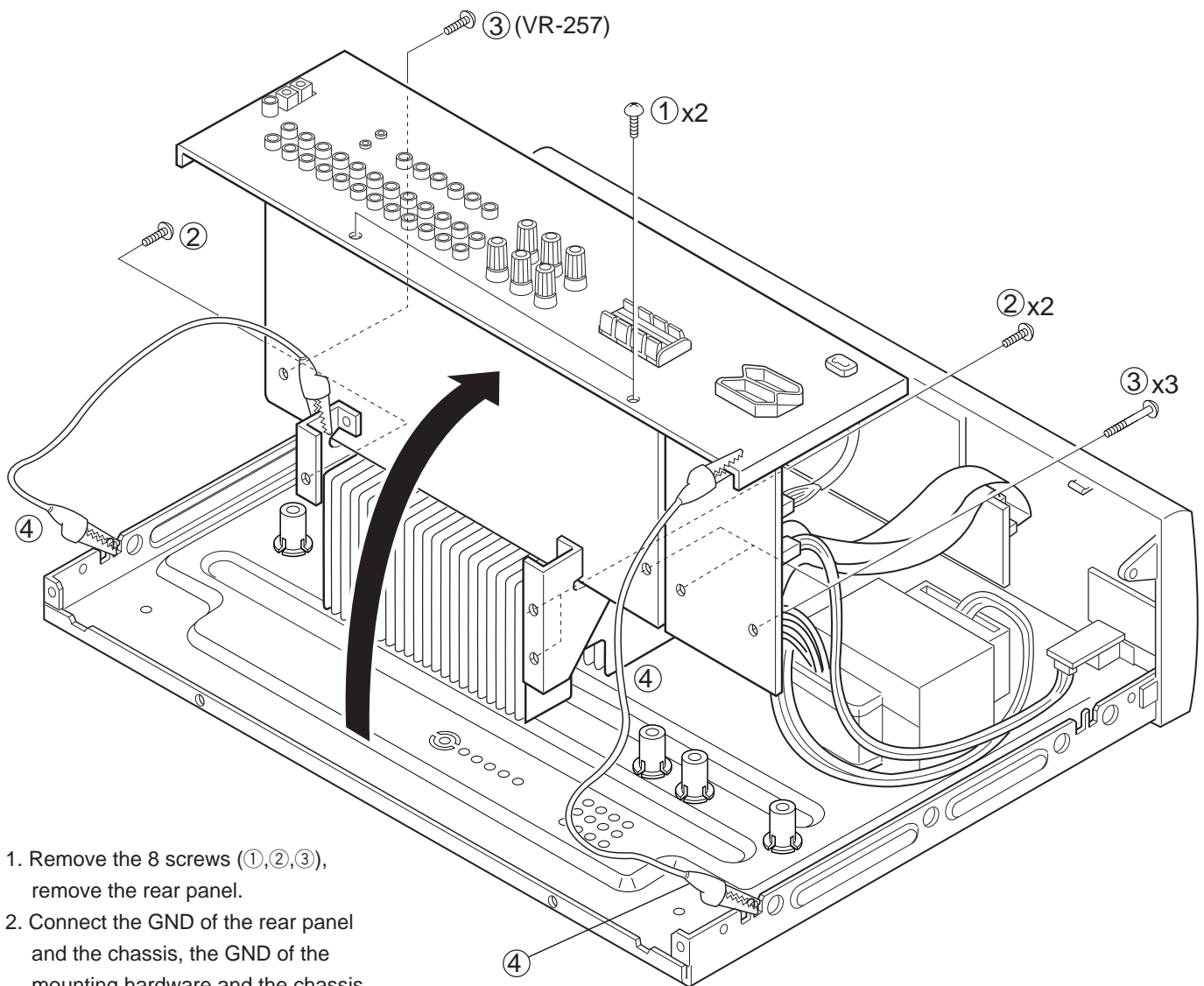
Use to select the listening mode.

18 SETUP key

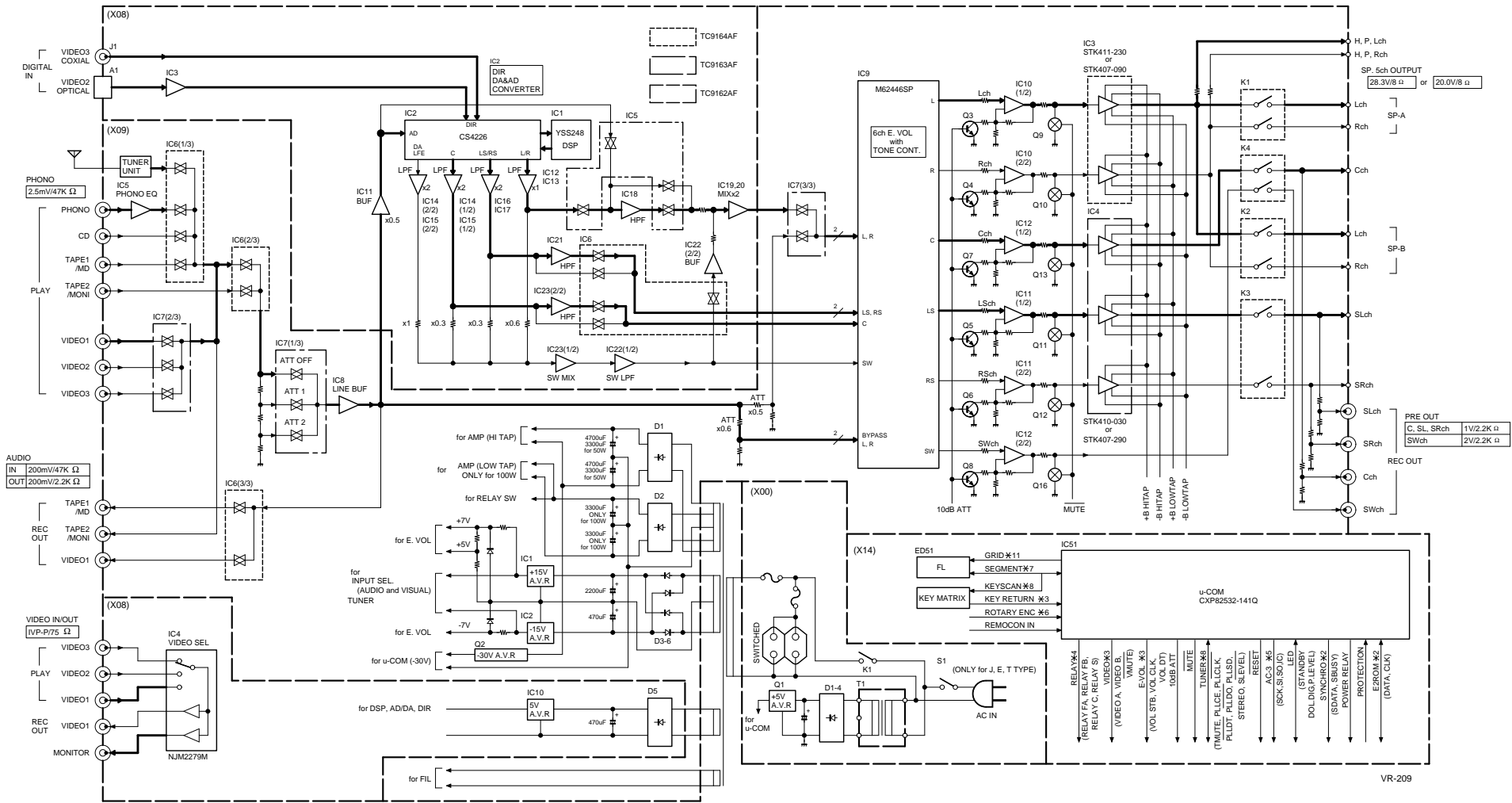
Use to select the surround sound settings.

KRF-V7510D/V8010D/VR-208/209

DISASSEMBLY FOR REPAIR



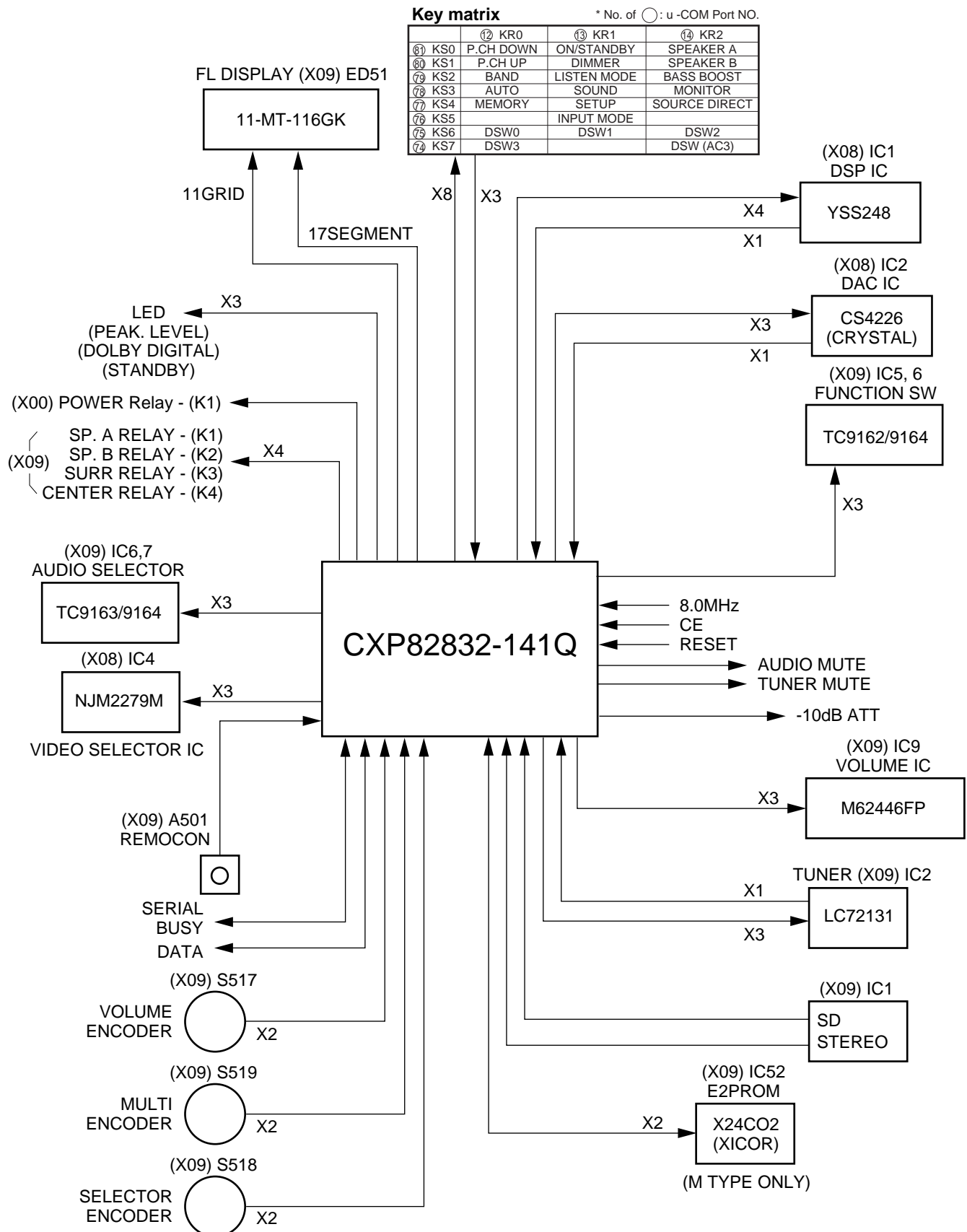
1. Remove the 8 screws (①,②,③), remove the rear panel.
2. Connect the GND of the rear panel and the chassis, the GND of the mounting hardware and the chassis with 2 alligators clip (④)



CIRCUIT DESCRIPTION

1. Microprocessor CXP82832-141Q(X09 : IC51)

1-1 Microprocessor peripheral block diagram



CIRCUIT DESCRIPTION

1-2 Pin description

Pin No.	Pin Name	I/O	Description
1,2	G10,11	O	Display grids 10,11
3	None	—	Ic test mode port.
4,5	None	I	No connect
6	AUDIO	I	Audio signal detection port. L=AUDIO.
7	VOL.ENC.A	I	Volume encoder A(clockwise) output.
8	REMOCON	I	Remote contol signal input.
9	VOL.ENC.B	I	Volume encoder B(counterclockwise) output.
10,11	None	O	Ic test mode port.
12-14	KR0-2	I	Key return 0-2.
15	PROTECT	I	Protection signal detection port. H=PROTECT.
16	S.DATA	I/O	Serial DATA signal.
17	S.BUSY	I/O	Serial BUSY signal.
18	E2.DT	I/O	E2 PROM data.
19	E2.CLK	I/O	E2 PROM clock.
20	SEL.ENC.A	I	Selector encoder A(clockwise) input.
21	SEL.ENC.B	I	Selector encoder B(counterclockwise) input.
22	MULTI.ENC.A	I	Multi encoder A(clockwise) input.
23	MULTI.ENC.B	I	Multi encoder B(counterclockwise) input.
24	SER.IN	I	SL16/XS8 selector. H=16bit.
25	AC3.SCK	O	YSS248 clock output.
26	AC3.SI	I	YSS248 data input.
27	AS3.SO	O	YSS248 data output.
28	Vdd	—	Analog power supply(+5V)
29	None	I	No connect
30	SEL.ST2	O	TC9162AF/63AF/64AF st2 output. H=latch.
31	AC3.CS	O	YSS248 CS output.
32	CODEC.CS	O	CS4226 CS output.
33	PLL.DO	I	Pll ic do signal input port.
34	PLL.ST	I	Tuner stereo signal detection port. L=STEREO.
35	PLL.SD	I	Tuner sd signal detection port. L=TUNED.
36	RCV.CE	I	Receiver chip enable signal port. L=ENABLE.
37	Avss	—	Analog GND.
38	RESET	I	Microproessor reset signal.
39,40	8MHz	I	Main clock generation(8MHz).
41	Vss	—	Microprocessor GND.
42	None	I	No connect
43	TEX	—	GND.
44	Vdd	—	Power supply(+5V).
45	Vfdp	—	Power supply(-33V).
46	SEL.ST1	O	TC9162AF/63AF/64AF st1 output. H=latch.
47	PLL.DT	O	Pll ic data signal output port.
48	PLL.CK	O	Pll ic clock signal output port.
49	PLL.CE	O	Pll ic ce signal output port.
50	T.TUNE	O	Tuner mute control. L=mute on.
51	A.MUTE	O	Output mute control. L=mute on.
52	SW.MUTE	O	Sub woofer mute control. L=mute on.
53	10dB.ATT	O	Volume 10dB attenuation control. H=att. on.
54	VOL.DT	O	Volume ic (M62446SP) data control.
55	VOL.CK	O	Volume ic (M62447SP) clock control. H=active.
56	VOL.ST	O	Volume ic (M62448SP) st control. H=active.
57	VCR.MUTE	O	Video ic (NJU2279D) cont2/4 mute control. L=mute on.
58	VCR.A	O	Video ic (NJU2279D) cont1 mute control. H/L=static.
59	VCR.BB	O	Video ic (NJU2279D) cont3 mute control. H/L=static.
60	FA.RLY	O	Front A speaker relay control. H=relay on.

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Description
61	FB.RLY	O	Front B speaker relay control. H=relay on.
62	C.RLY	O	Center speaker relay control. H=relay on.
63	S.RLY	O	Rear speaker relay control. H=relay on.
64	POWER.RLY	O	Power relay control. H=relay on.
65	STANDBY.LED	O	Standby led control.L=led on.
66	DOL.DIG.LED	O	Dolby digital led control.L=led on.
67	P.LEVEL.LED	O	Peak level led control.L=led on.
68-70	None	O	No connect
71	PACL_CTL	O	Non oscillation of power pack ic at power off. L=stop oscillation.
72	AC3.IC	O	YSS248/CS4226 initial clear port.
73	EMPHASIS	O	Tuner emphasis on/off. H=100k/10k,L=50k/9k.
74-81	P1-8	O	Display segments 1-8 & key returns 0-7.
82-88	P9-15	O	Display segments 9-15.
89	Vdd	O	Microprocessor power supply(+5V)
90,91	P16,17	O	Display segments 16,17
92-100	G1-9	O	Display grids 1-9.

2. DSP YSS248 (X08 : IC1)

2-1 Pin description

Pin No.	Pin Name	I/O	Descriptions
1	Vdd	—	Power supply(+5V)
2~7	TEST	O	Test port.
8	XI	I	Crystal oscillation port.
9	XO	O	Crystal oscillation port.
10	Vss	—	GND
11	CPO	O	PLL output port.
12~18	TEST	I	Test port.
19	VIN	I	PLL input port.
20	Vref	I	PLL input port.
21	Vdd	—	Power supply(+5V)
22~29	TEST	I	Test port.
30	Vss	—	GND
31	Vdd	—	Power supply(+5V)
32~39	OPORT	O	Register output ports.
40	Vss	—	GND
41	Vdd	—	Power supply(+5V)
42~44	TEST	I	Test port.
45~47	SDO2~0	O	PCM output port.
48	SDOBCK	I	Bit clock for SD output ports.
49	SDOWCK	I	Word clock for SD output ports.
50	Vss	—	GND
51	Vdd	—	Power supply(+5V)
52	AC3DATA	O	AC3 data detection port.
53	CRC	O	CRC error detection port.
54	MUTE	O	Automatic mute detection port.
55	KARAOKE	O	AC3 karaoke data detection port.
56	SURENC	O	AC3 2/0 mode dolby surround encode input detection port.
57	2/0MODE	O	AC3 2/0 mode input detection port.3.5
58,59	TEST	I	Test port.
60	Vss	—	GND
61	TEST	I	Test port.
62	/IC	I	Initial clear port.
63~65	TEST	I	Test port.
66	/CS	I	Microprocessor interface chip selector input port.

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Descriptions
67	SO	O	Microprocessor interface serial data output port.
68	SI	I	Microprocessor interface serial data input port.
69	SCK	I	Microprocessor interface clock input port.
70	TEST	I	Test port.
71	Vdd	–	Power supply(+5V)
72~79	STREAM	O	STREAM detection port.
80	Vss	–	GND
81	Vdd	–	Power supply(+5V)
82	SDIWCK	I	Word clock for SD input ports.
83	SDIBCK	I	Bit clock for SD input ports.
84,85	SD10,11	I	AC3 bit stream data input port.
86~89	TEST	I	Test port.
90	Vss	–	GND
91	Vdd	–	Power supply(+5V)
92~99	IPORT	I	Register input ports.
100	Vss	–	GND

3. FUNCTION IC TC9162AF(X08:IC5)

CONDITION(PIN NO.)		(2,27)	(3,26)	(5,24)	(6,23)
S.DIRECT		ON	OFF	*	*
STEREO		ON	OFF	*	*
SURROUND (DOWN MIX)		OFF	ON	*	*
SETUP	TEST TONE	OFF	ON	*	*
	SW-ch ON	*	*	OFF	ON
	SW-ch OFF	*	*	ON	OFF

4. FUNCTION IC TC9164AF(X08:IC6)

CONDITION(PIN NO.)			(2)	(3-5)	(7)	(8)	(10)	(10)
			C-ch HPF	C-ch FLAT	SW-SW+C	–	SR-ch FLAT	SR-ch HPF
SETUP	TEST TONE	SW-ch	*	*	ON	ON	*	*
		SW-ch	*	*	OFF	OFF	*	*
	C-ch	NORMAL	ON	OFF	ON	OFF	OFF	ON
		LARGE or NONE	OFF	ON	OFF	OFF	OFF	ON

5. FUNCTION IC TC9164AF(X08:IC6)

CONDITION(PIN NO.)			(18)	(19)	(21)	(22)	(24)	(25)	(26)	(27)
DOLBY DIGITAL		YSE	ON	OFF	*	*	*	*	ON	ON
		NONE	ON	OFF	*	*	*	*	OFF	OFF
A & B SPEAKER OFF			ON	OFF	ON	OFF	OFF	OFF		
	TEST TONE		ON	OFF	*	*	OFF	OFF	OFF	OFF
SETUP	SW-ch NONE		ON	OFF	*	*	*	*	OFF	OFF
	SW-ch	YES	ON	OFF	OFF	ON	ON	ON	*	*
		NONE	ON	OFF	ON	OFF	OFF	OFF	*	*

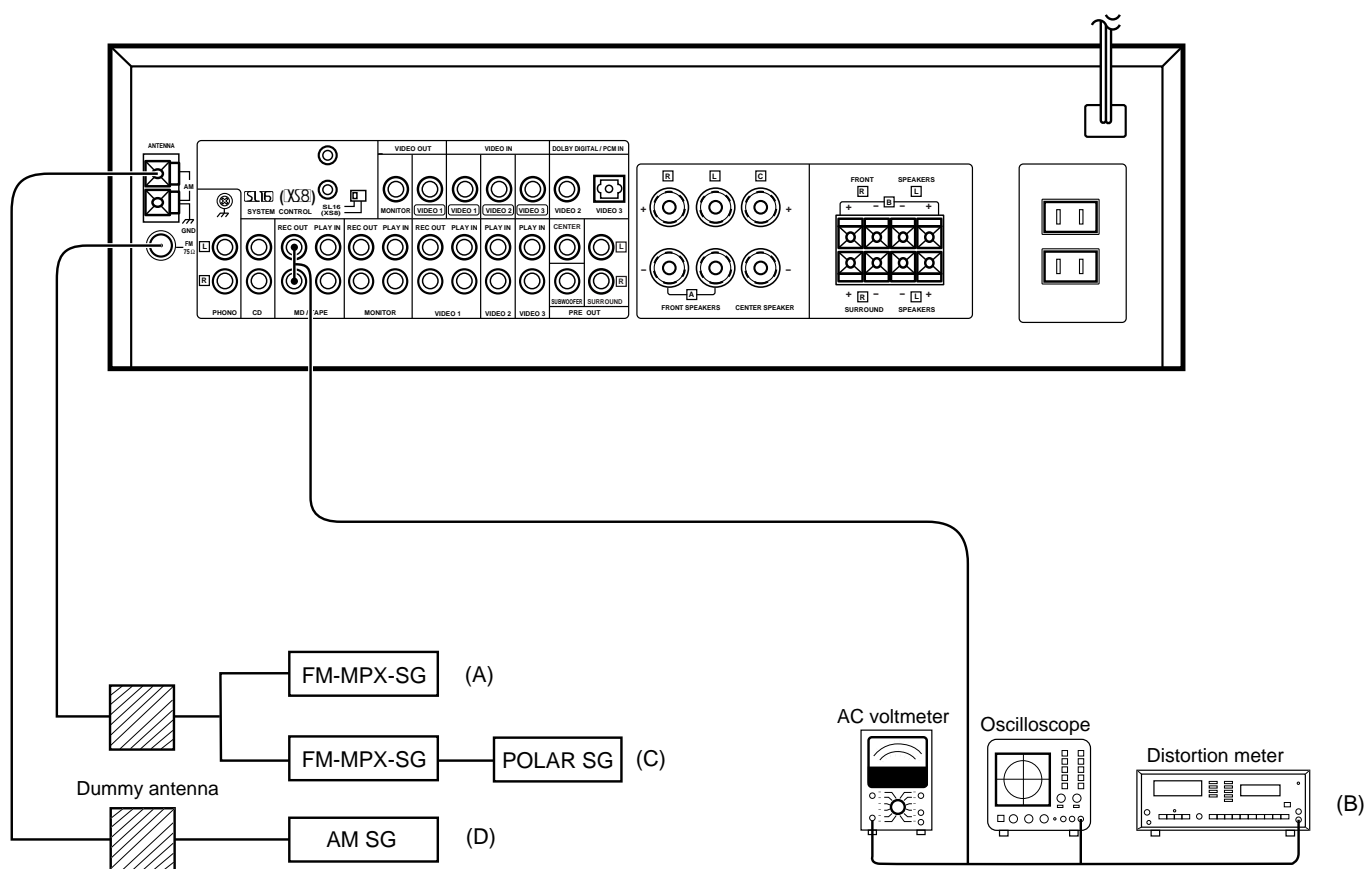
*: Be not concerned with the condition.

6. SPEAKER SETUP

SUB WOOFER	YES				NO					
FRONT SP	LOW CUT FREQ.				FULL FREQ.					
CENTER SP	NORMAL		NO		LARGE		NORMAL		NO	
SURROUND SP	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
CENTER MODE (PRO LOGIC)	NORMAL	–	PHANTOM	–	WIDE BAND	–	NORMAL	–	PHANTOM	–

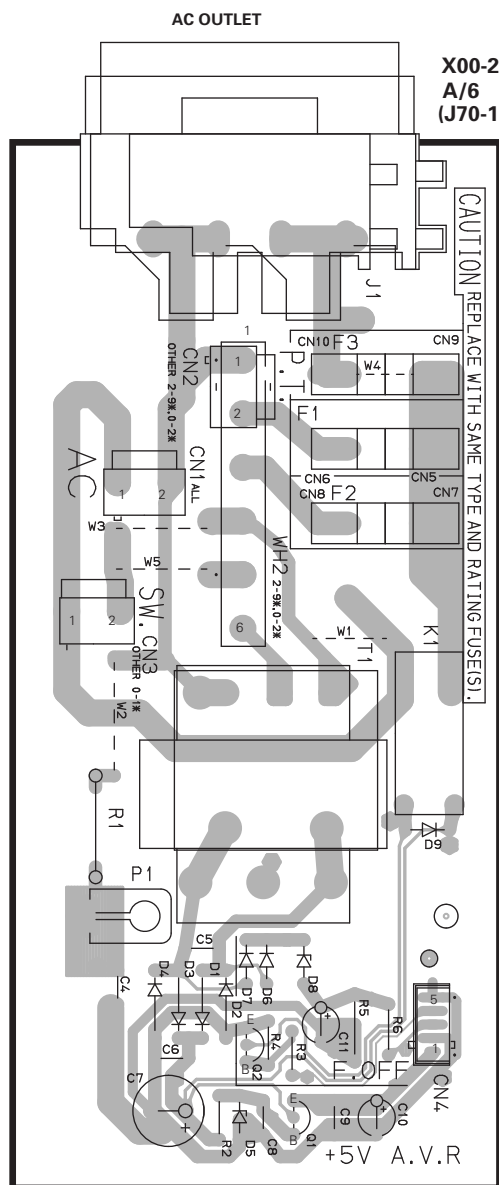
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR : FM					
1	DISTORTION (STEREO)	(A) 98.0MHz 1kHz, ± 68.25 kHz dev. Selector : L or R Pilot : ± 6.75 kHz dev. 70dBf(ANT. input)	(B)	98.0 MHz	IFT (TUNER A1)	Minimum distortion (L or R)	
2	TUNING LEVER	(A) 98.0MHz MONO 1kHz, ± 75 kHz dev. 25dBf(ANT. input)	(B)	MONO 98.0 MHz	VR1 (TUNER UNIT)	Adjust VR1 and stop at the point where ED51 (TUNED) goes on.	



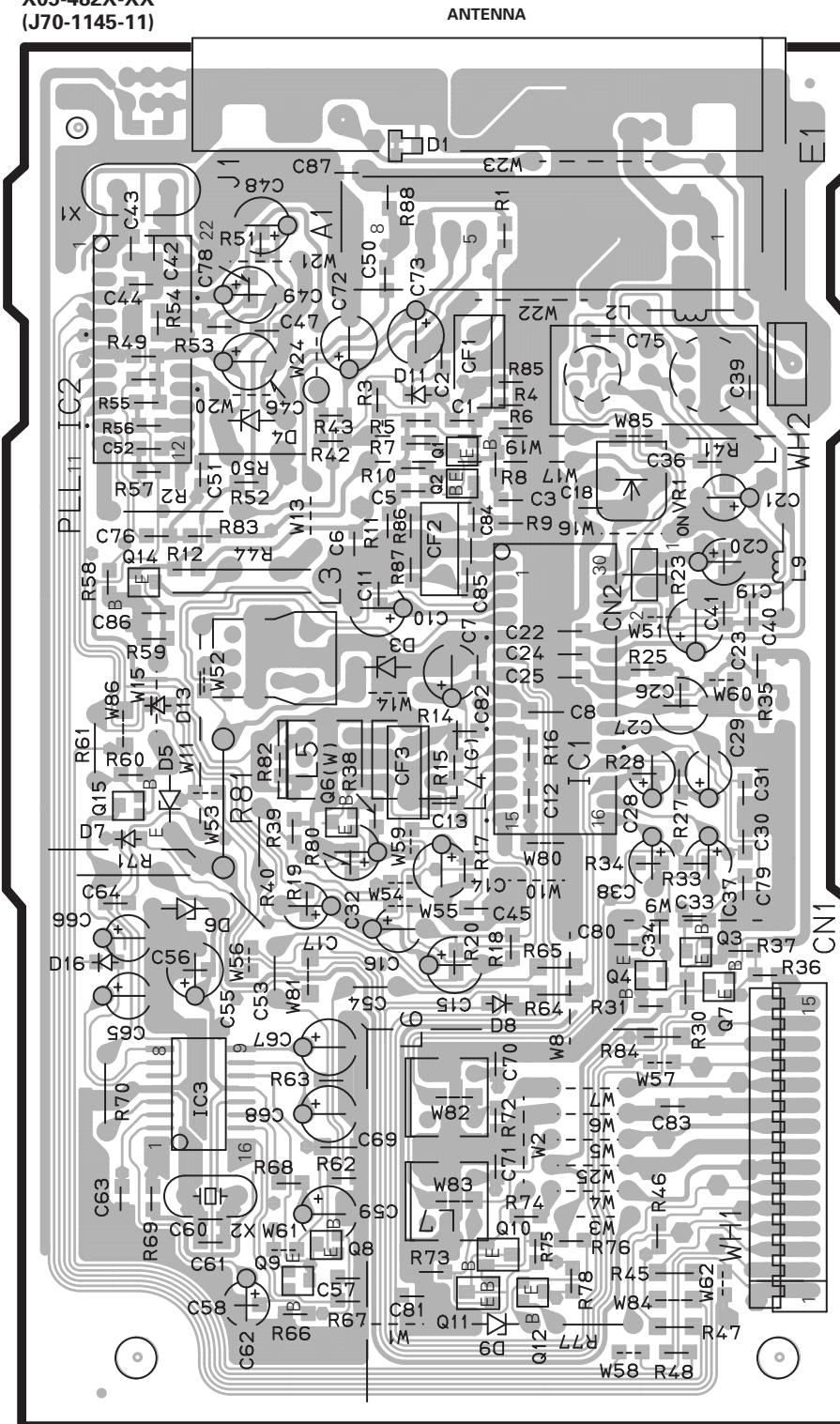
PC BOARD (Component side view)

POWER SUPPLY UNIT

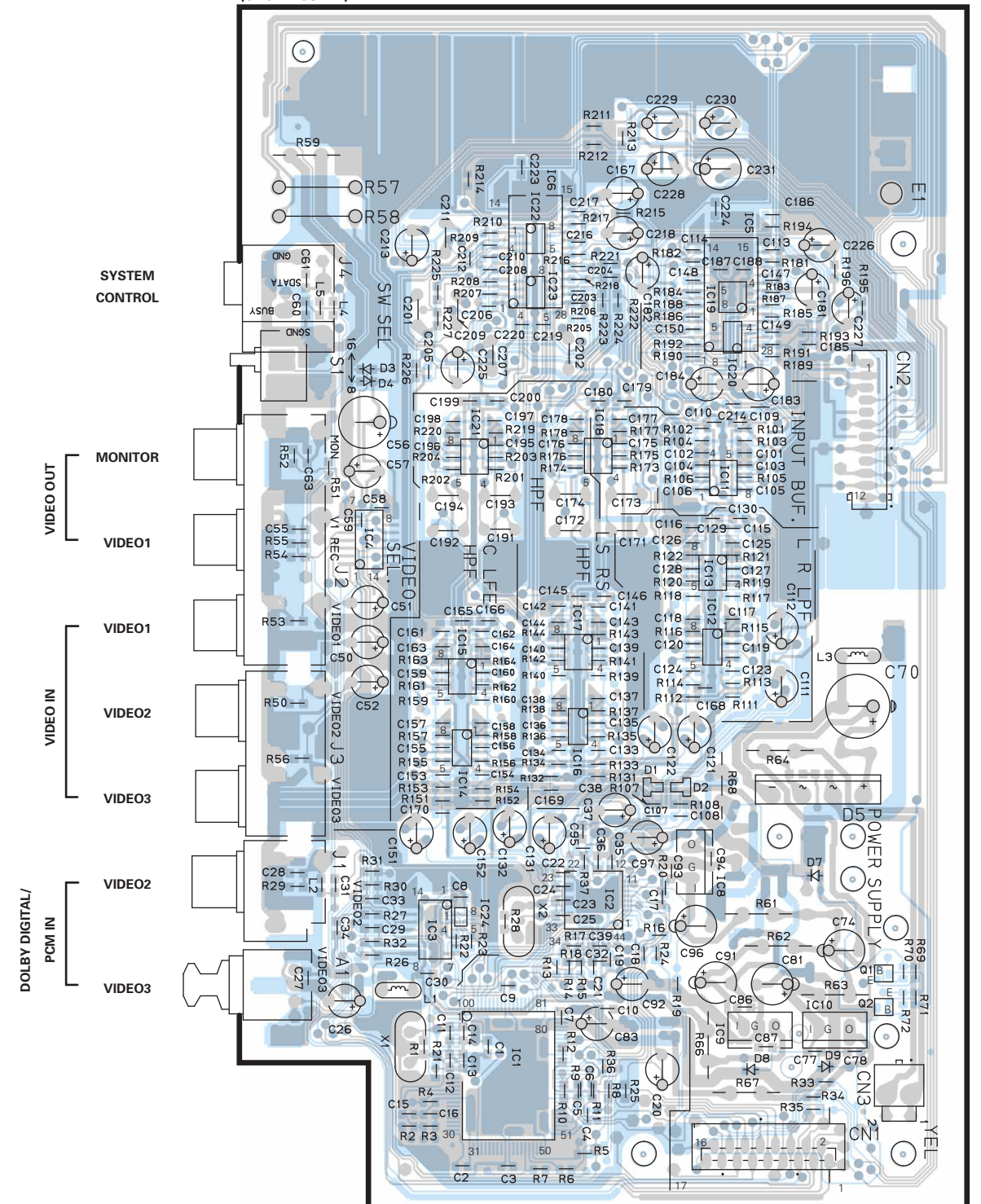


PC BOARD (Component side view)

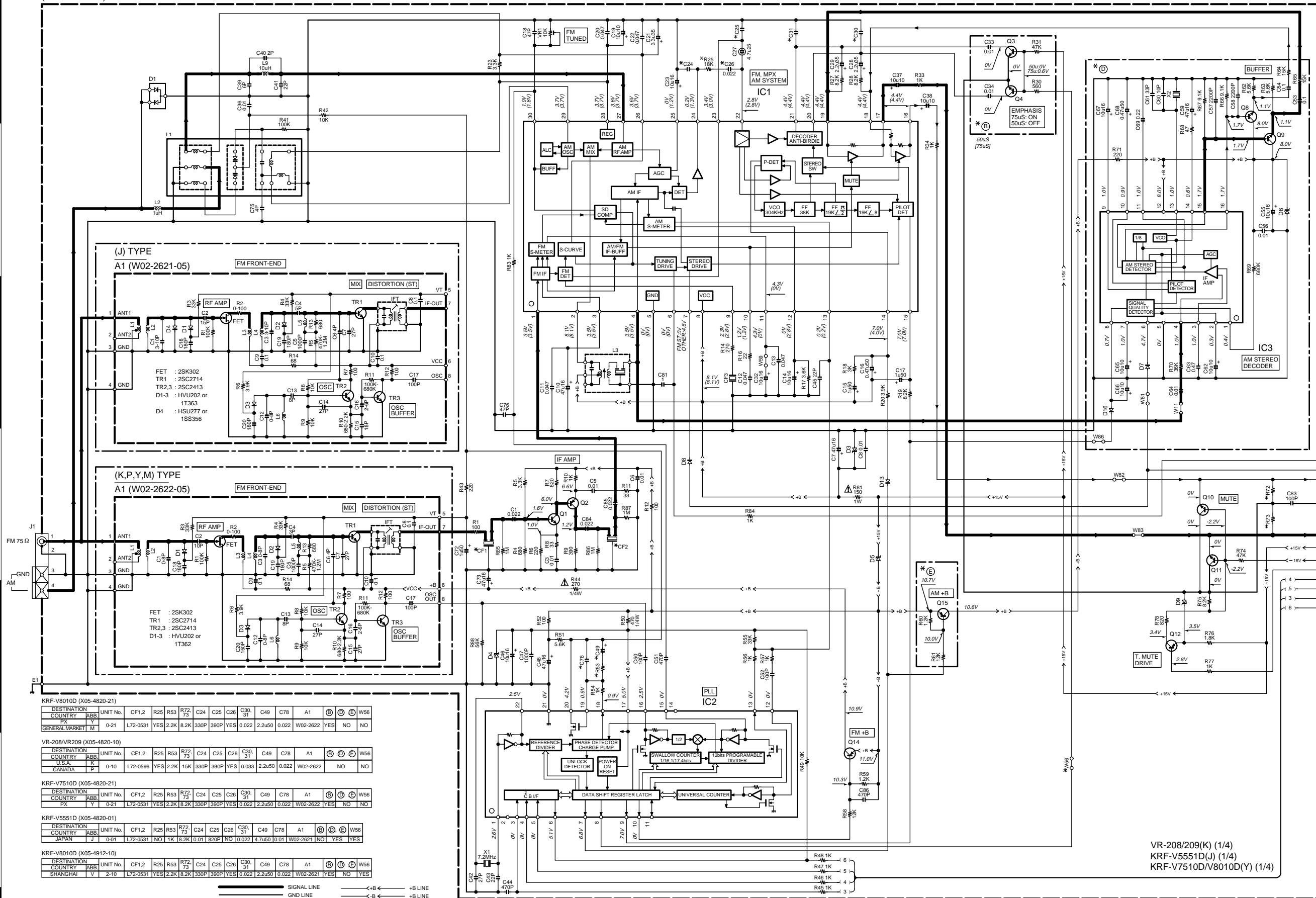
TUNER UNIT
X05-482X-XX
(J70-1145-11)



SURROUND UNIT
X08-284X-XX
(J70-1169-21)



TUNER UNIT (X05-4XXX-XX)



KRF-V8010D (X05-4820-21)											
DESTINATION	COUNTRY	ABB.	UNIT No.	CF1.2	R25	R53	R72	C24	C25	C26	C30
PX	Y	0-21	L72-0531	YES	2.2K	8.2K	330P	390P	YES	0.022	2.2u50
GENERAL MARKET	M										

VR-208/VR209 (X05-4820-10)											
DESTINATION	COUNTRY	ABB.	UNIT No.	CF1.2	R25	R53	R72	C24	C25	C26	C30
U.S.A.	K	0-10	L72-0596	YES	2.2K	15K	330P	390P	YES	0.033	2.2u50
CANADA	P										

KRF-V7510D (X05-4820-21)											
DESTINATION	COUNTRY	ABB.	UNIT No.	CF1.2	R25	R53	R72	C24	C25	C26	C30
PX	Y	0-21	L72-0531	YES	2.2K	8.2K	330P	390P	YES	0.022	2.2u50

KRF-V5551D (X05-4820-01)											
DESTINATION	COUNTRY	ABB.	UNIT No.	CF1.2	R25	R53	R72	C24	C25	C26	C30
JAPAN	J	0-01	L72-0531	NO	1K	8.2K	0.01	820P	NO	0.022	4.7u50

KRF-V8010D (X05-4912-10)											
DESTINATION	COUNTRY	ABB.	UNIT No.	CF1.2	R25	R53	R72	C24	C25	C26	C30
SHANGHAI	V	2-10	L72-0531	YES	2.2K	8.2K	330P	390P	YES	0.022	2.2u50

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

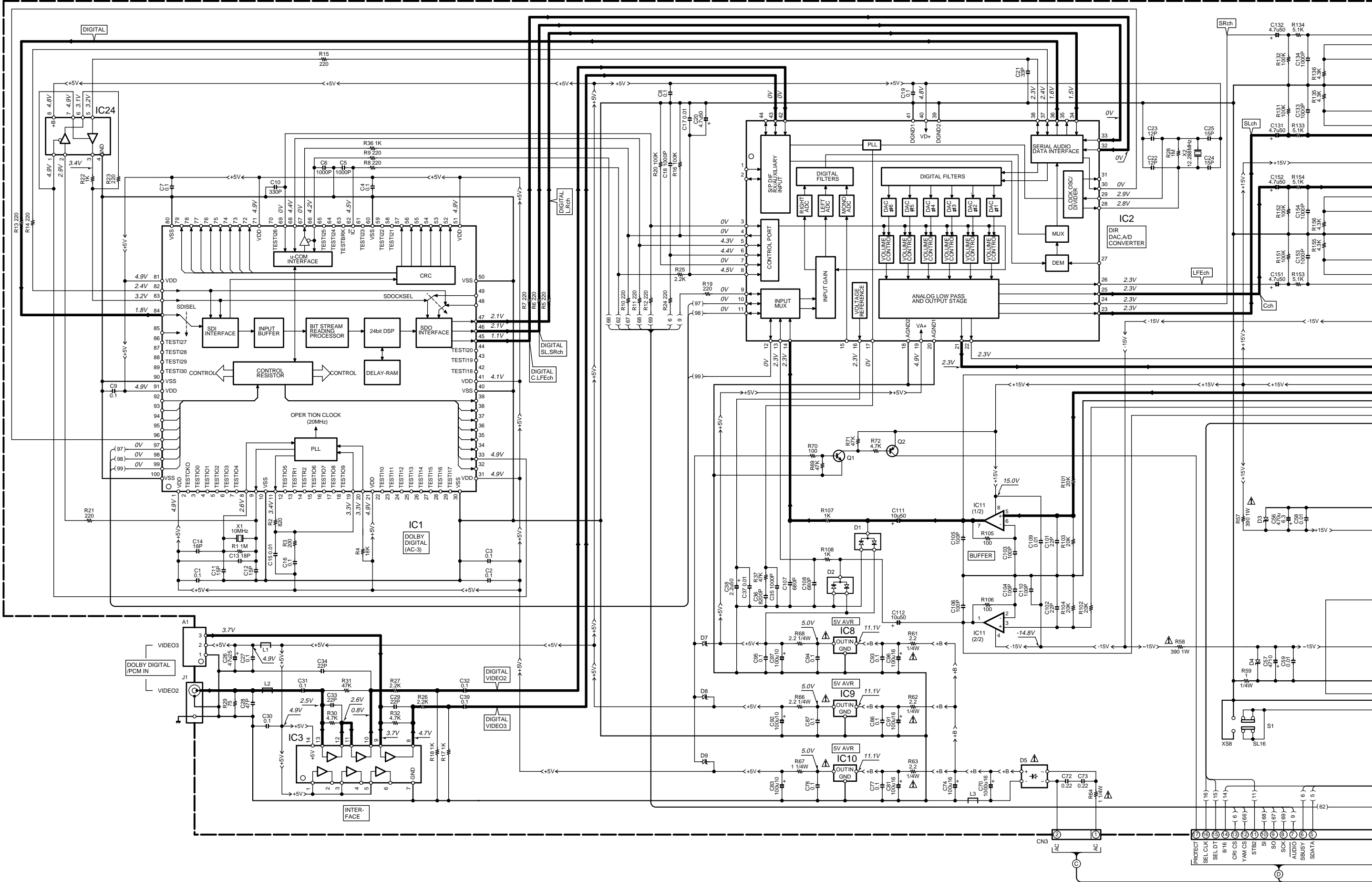
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

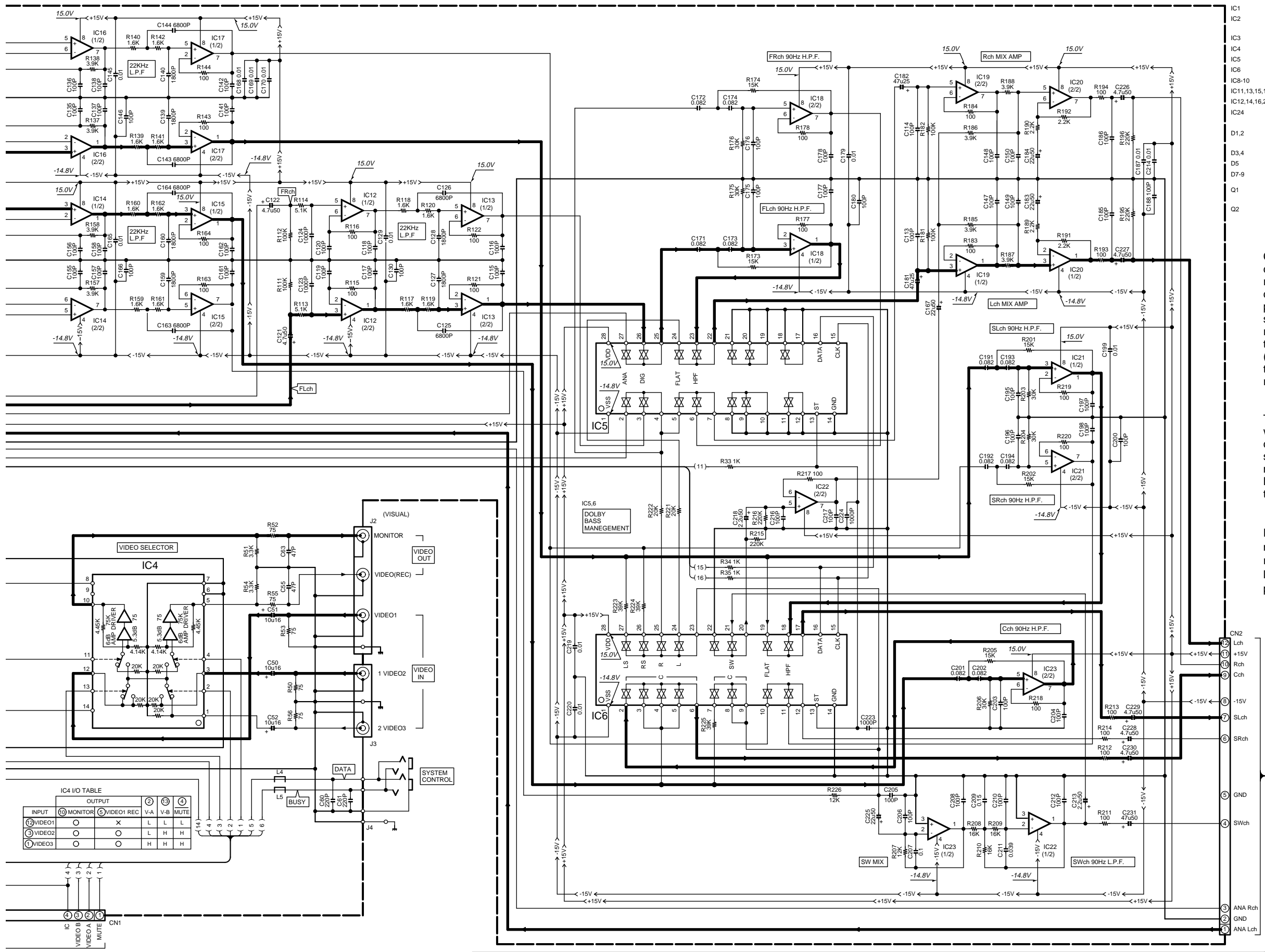
MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

Y05-3600-10

KRF-V7510D/V8010D/VR-208/209

KENWOOD





- IC1 : YSS248
- IC2 : CS4226KQC or CS4226-KQ
- IC3 : TC74HCU04AF
- IC4 : NUM2279M
- IC5 : TC9162AF
- IC6 : TC9164AF
- IC8-10 : TA7805SB
- IC11, 13, 15, 17-19, 21 : NUM4565M
- IC12, 14, 16, 20, 22, 23 : NUM4580ED
- IC24 : TC7W241FU
- D1,2 : DA204U or 1SS302
- D3,4 : UDZ5.1B
- D5 : D2SBA20F03
- D7-9 : UDZ6.2B
- Q1 : 2SC4081(R,S) or 2SC4116(Y,GR)
- Q2 : 2SA1576A(R,S) or 2SA1586(Y,GR)

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

IC4 I/O TABLE		OUTPUT			
INPUT	⑩ MONITOR	⑨ VIDEO1 REC	② V-A	③ V-B	④ MUTE
⑬ VIDEO1	○	×	L	L	L
⑬ VIDEO2	○	○	L	H	H
⑬ VIDEO3	○	○	H	H	H

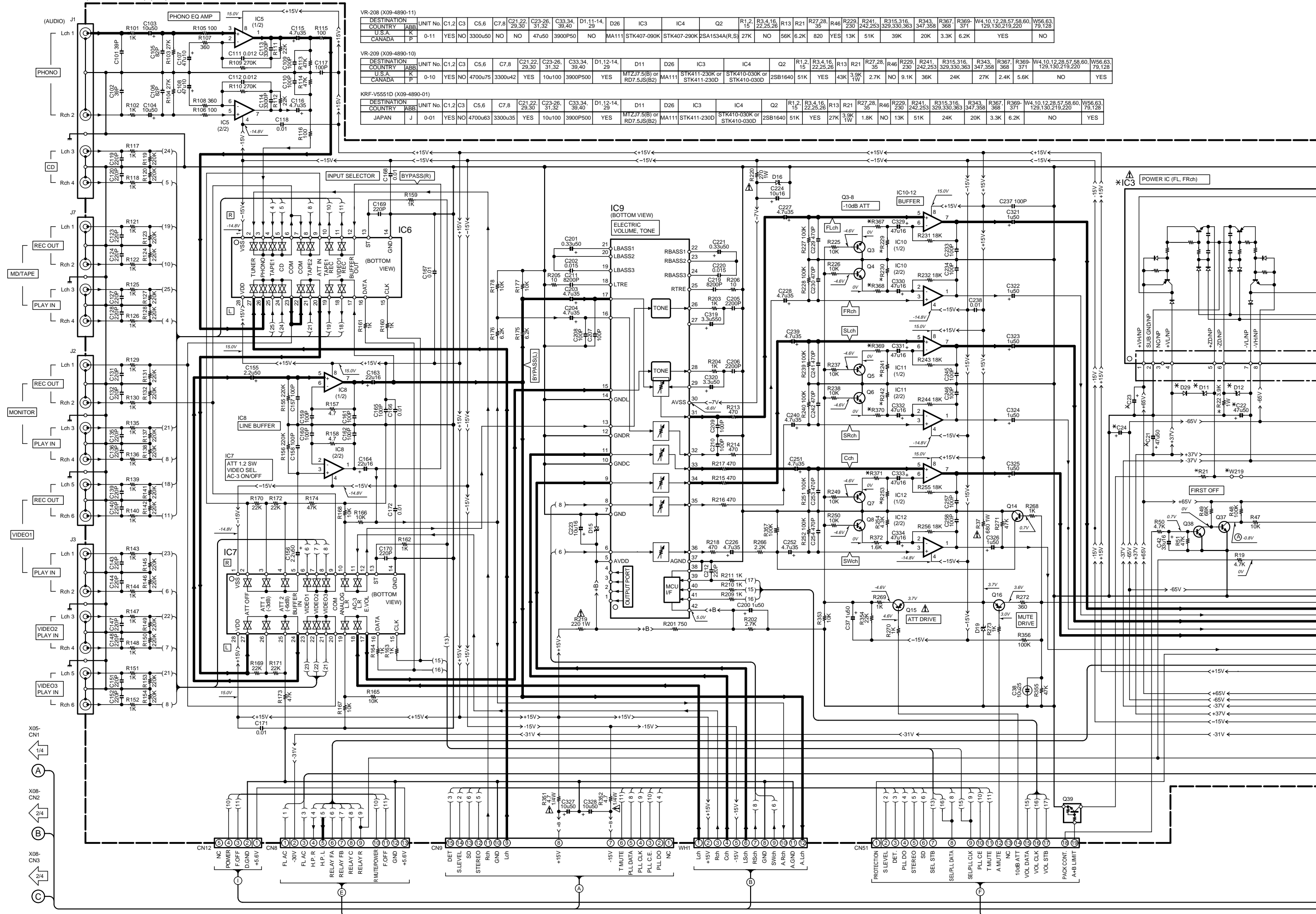
VR208/209(K) (2/4)
KRF-V5551D/V7510D/V8010D(M) (2/4)

KRF-V7510D/V8010D/VR-208/209

Y05-3600-10

KENWOOD

(X09-XXXX-XX) (A/3)

[illegible]

VR-209 (X09-4890-10)																													
DESTINATION		UNIT No.	C1,C2	C5,6	C7,8	C21.22, 29,30	C23-26, 31,32	C33,34, 39,40	D1,12-14, 29	D17	D26	IC3	IC4	Q2	R1,2, 15	R3,4,16, 22,25,26	R13	R21	R27,28, 35	R46	R229, 230	R241, 242,253	R315,316, 329,330,363	R343, 347,358	R367, 368	R369- 371	W4,W10, 129,130,219,220	12,28,57,58,60, 79,128	
COUNTRY	ABB																												
U.S.A.	K	P	0-10	YES NO	4700u75	3300u42	YES	10u100	3900P500	YES	MfZJ7.5(B) or R07.5JS(B2)	MA111	STK411-230K or STK411-230D	STK410-030K or STK410-030D	2SB1640	51K	YES	43K	^{3.9K} / _{1W}	2.7K	NO	9.1K	36K	24K	27K	2.4K	5.6K	NO	YES
CANADA	K	P	0-10	YES NO	4700u75	3300u42	YES	10u100	3900P500	YES	MfZJ7.5(B) or R07.5JS(B2)	MA111	STK411-230K or STK411-230D	STK410-030K or STK410-030D	2SB1640	51K	YES	43K	^{3.9K} / _{1W}	2.7K	NO	9.1K	36K	24K	27K	2.4K	5.6K	NO	YES

KRF-V5551D (X09-4890-01)																														
DESTINATION		UNIT	No.	C1	C3	C5,6	C7,8	C21,22, 29,30	C23-26, 31,32	C33,34, 39,40	D1,12-14, 29	D11	D26	IC3	IC4	Q2	R1,2, 15	R3,4,16, 22,25,26	R13	R21	R27,28, 35	R46	R229, 230	R241, 242,253	R315,316, 329,330,363	R343, 347,358	R367, 368	R369, 371	W4,10,12,28,57,58,60, 129,130,219,220	W56,63, 79,128
COUNTRY	ABB																													
JAPAN	J	0-01	YES	NO	4700u63	3300u35	YES	10u100	3900P500	YES	MDTJ.7J.5(B) or RD7.5J.5(B2)	MA111	STK411-230D	STK410-030K or STK410-030D	2SB1640	51K	YES	27K	3.9K 1W	1.8K	NO	13K	51K	24K	20K	3.3K	6.2K	NO	YES	

KRF-V7510D (X09-4892-91)

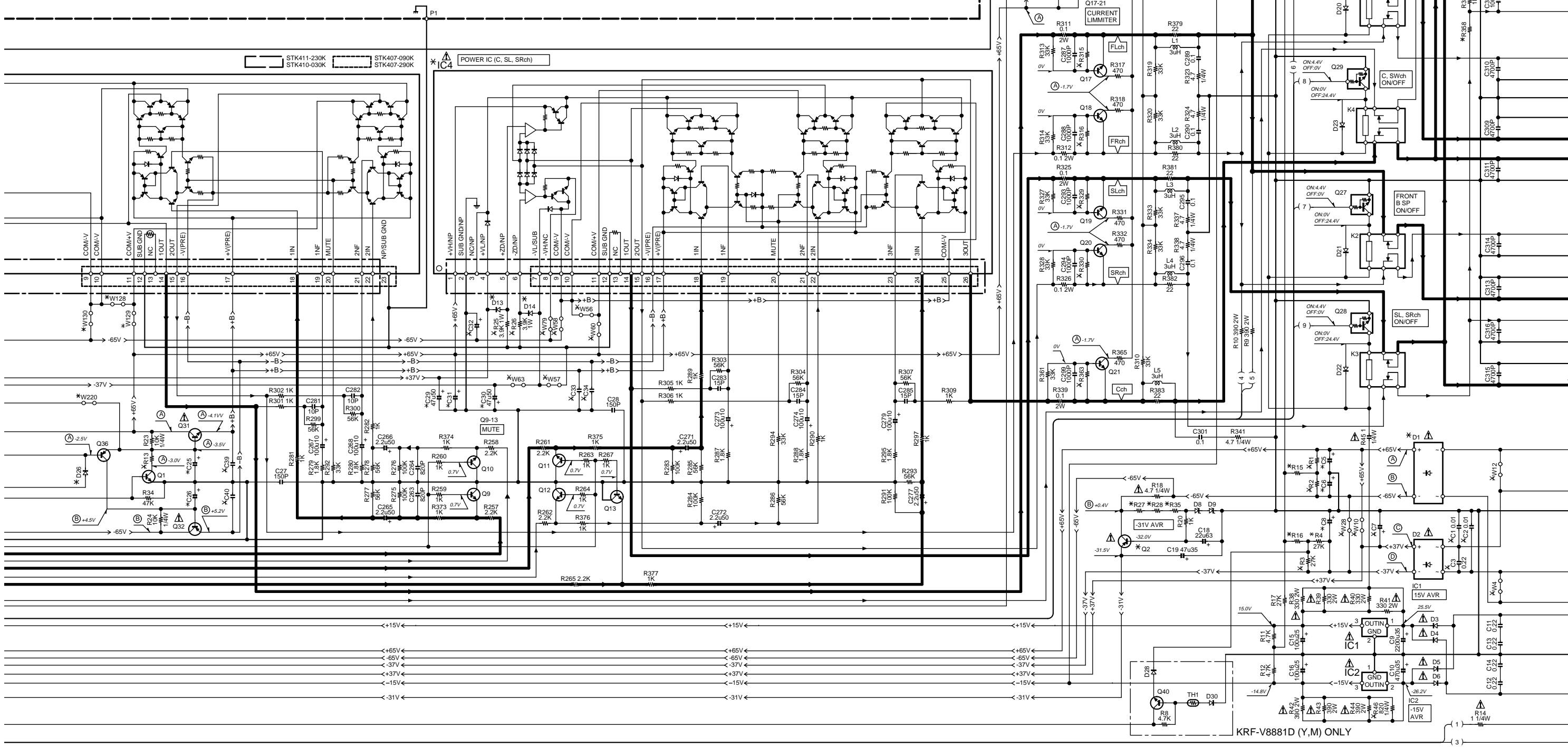
DESTINATION	COUNTRY	ABB	UNIT No.	C1,2	C3	C5,6	C7,8	C21,22	C23-26	C33,34	D1,11-14	D26	IC3	IC4	Q2	R1,2	R3,4,16	R13	R21	R27,28	R46	R229	R241	R242,253	R315,316	R343	R367	R369	W4,10,12,28,57,58,60	W56,63
PX	Y		2-91	NO	YES	3300u50	NO	NO	47u50	3900P50	NO	MA111	STK407-090K	STK407-290K	2SA1534A(R,S)	27K	NO	22K	6.2K	820	YES	13K	51K	51K	39K	20K	3.3K	6.2K	YES	NO

KRF-V8010D (X09-4890-21)

DESTINATION	COUNTRY	ABB	UNIT No.	C1,2	C3	C5,6	C7,8	C21,22	C23-26	C33,34	D1,12-14	D11	D26	IC3	IC4	Q2	R1,2	R3,4,16	R13	R21	R27,28	R46	R229	R241	R242,253	R315,316	R343	R367	R369	W4,10,12,28,57,58,60	W56,63
PX	Y		0-21	NO	YES	4700u75	3300u42	YES	10u100	3900P500	YES	MTZJ7.5(B) or RD7.5JS(B2)	MA111	STK411-230K or STK411-230D	STK410-030K or STK410-030D	2SB1640	51K	YES	20K	3.9K	1W	1.8K	NO	13K	51K	24K	20K	3.3K	6.2K	NO	YES
GENERAL MARKET	M																														

KRF-V8010D (X09-6062-10)

DESTINATION	COUNTRY	ABB	UNIT No.	C1,2	C3	C5,6	C7,8	C21,22	C23-26	C33,34	D1,12-14	D11	D26	IC3	IC4	Q2	R1,2	R3,4,16	R13	R21	R27,28	R46	R229	R241	R242,253	R315,316	R343	R367	R369	W4,10,12,28,57,58,60	W56,63
SHANGHAI	V		2-10	YES	NO	4700u63	3300u35	YES	10u100	3900P500	YES	MTZJ8.2(B) or RD8.2JS(B2)	HSS104A or 1SS133	STK411-230D	STK410-030K or STK410-030D	2SB1640	51K	YES	27K	3.9K	1W	1.8K	NO	13K	51K	24K	20K	3.3K	6.2K	NO	YES



IC1 : TA7815SB
IC2 : TA79015SB
IC3 : *

Q1,17-21,24,25,34,35,37 : 2SC1845(F,E)
Q2 : *

D1,2 : D4SBL20UF03
D3-6 : 1SR139-400 or S5688B
D8,9 : MTZJ16(B) or RD16ES(B2) or HZS16N(B2)
D11 : *

D17 : 1SS133 or HSS104A
D18 : MTZJ4.7(B) or RD4.7ES(B2) or HZS4.7N(B2)
D19 : MTZJ3.3(B) or RD3.3ES(B2) or HZS3.3N(B2)
D20-23,27-30 : MA111
D26 : *

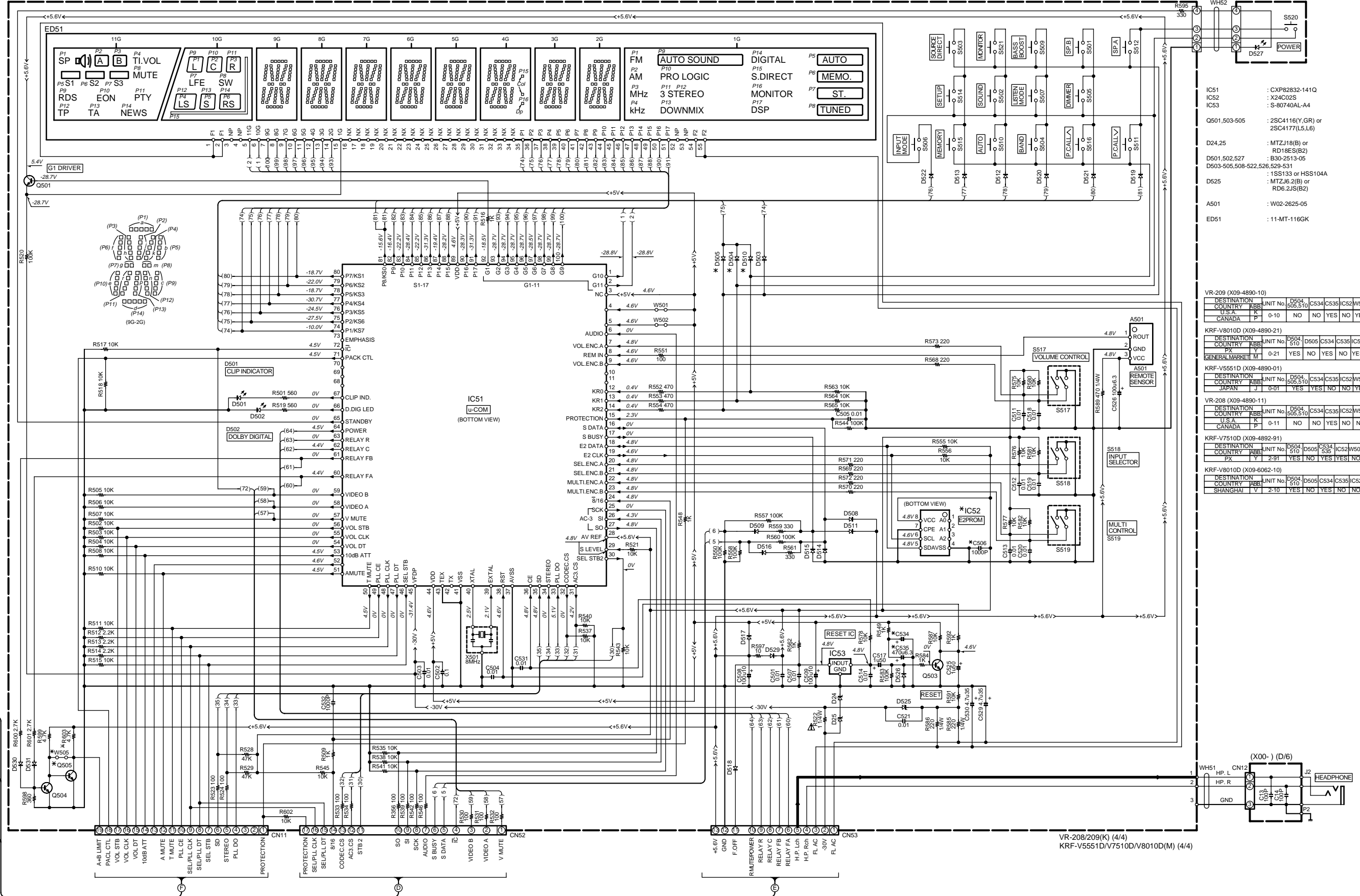
DC VOLTAGE FOR IC3

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
STK411-230K	(A) 66.9V	0V	36.1V	(C) 36.3V	28.2V	-28.3V	(D) -36.4V	(B) -66.6V	-36.2V	-36.2V	-36.2V	0V	0V	0V	0V	-62.0V	62.8V	0V	0V	-60.8V	0V	0V	0V
STK407-090K									(B) (D) -41.5V	(B) (D) -41.5V	(A) (C) 41.5V	0V	0V	0V	0V	-37.9V	38.2V	0V	0V	-36.6V	0V	0V	0V

DC VOLTAGE FOR IC4

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
STK410-030K	(A) 66.9V	0V	36.1V	(C) 36.4V	28.2V	-28.3V	(D) -36.4V	(B) -66.6V	-56.5V	-56.5V	-56.5V	0V	0V	0V	0V	-62.0V	62.8V	0V	0V	-60.8V	0V	0V	0V	-57.9V	0V	0V
STK407-290K									(B) (D) -41.5V	(B) (D) -41.5V	(A) (C) 41.5V	0V	0V	0V	0V	-38.0V	38.2V	0V	0V	-36.8V	0V	0V	0V	-41.5V	0V	0V

DISPLAY UNIT
(X09-XXXX-XX) (B/3)



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

KRF-V7510D/V8010D/VR-208/209

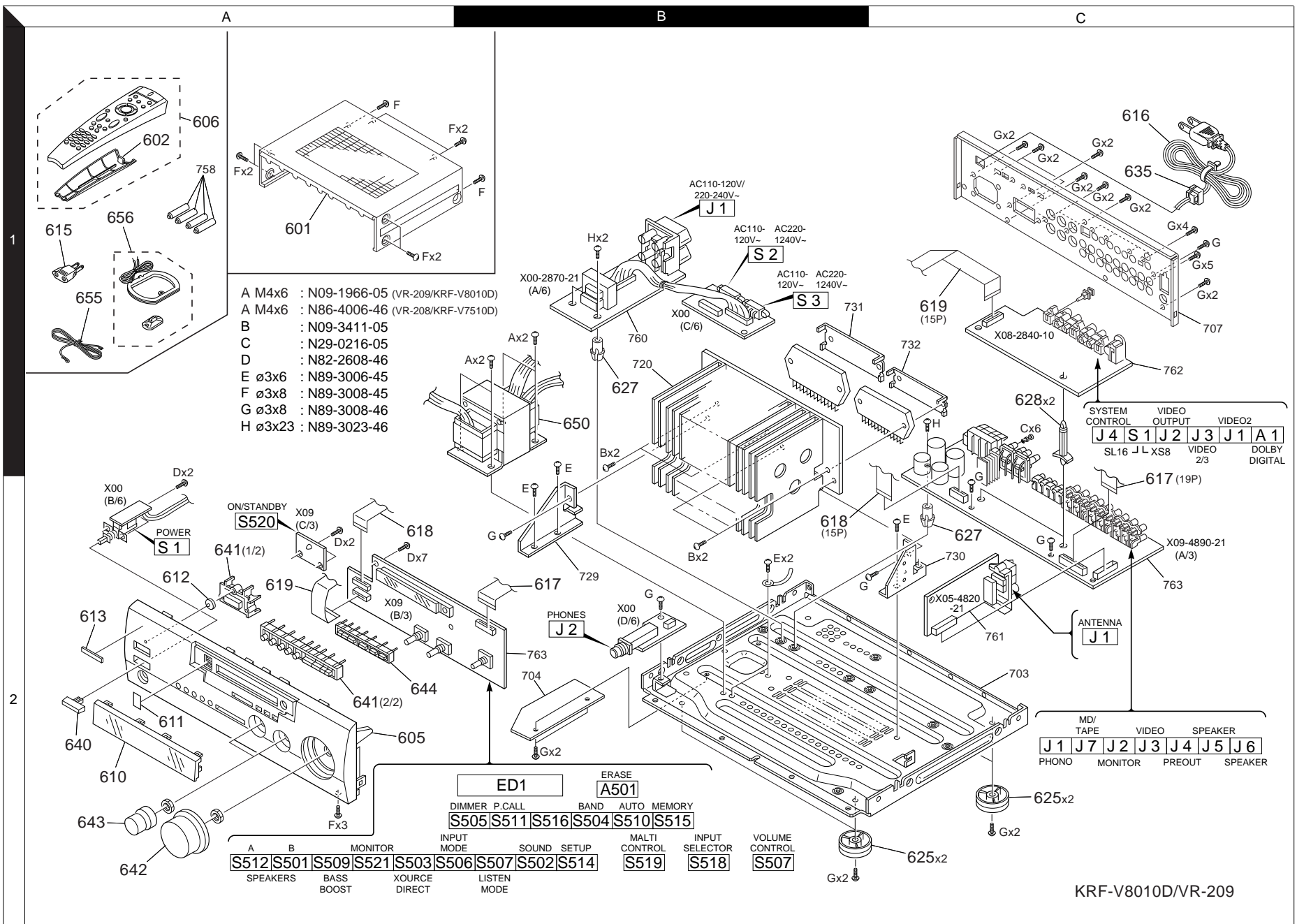
Y05-3600-10

KENWOOD

KRF-V7510D/N8010D/VR-208/209 EXPLODED VIEW

31

Parts with exploded numbers larger than 700 are not supplied.



KRF-V8010D/VR-209

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1

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
VR-208/209/KRF-V7510D/V8010D						
601	1A	*	A01-3534-01	METALLIC CABINET		
602	1A	*	A09-0366-08	BATTERY COVER		
605	2A	*	A60-1317-01	PANEL	KP1	
605	2A	*	A60-1318-01	PANEL	Y1M1	
605	2A	*	A60-1367-01	PANEL	K1P2	
605	2A	*	A60-1385-01	PANEL	Y2	
605	2A	*	A60-1439-01	PANEL	V	
606	1A	*	A70-1194-05	REMOTE CONTROLLER ASSY	KP1Y1	
606	1A	*	A70-1194-05	REMOTE CONTROLLER ASSY	K1P2Y2	
606	1A	*	A70-1194-05	REMOTE CONTROLLER ASSY	M1	
606	1A	*	A70-1195-05	REMOTE CONTROLLER ASSY	V	
610	2A	*	B10-2426-02	FRONT GLASS		
611	2A	*	B11-0361-04	SMOKED FILTER		
612	2A	*	B12-0340-04	INDICATOR		
613	2A	*	B43-0302-04	KENWOOD BADGE		
-			B46-0197-00	QUESTIONAIRE CARD	KK1	
-			B46-0329-03	WARRANTY CARD	V	
-			B46-0330-03	WARRANTY CARD	KY1K1	
-			B46-0330-03	WARRANTY CARD	Y2	
-			B46-0336-03	WARRANTY CARD	P1P2	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y1Y2	
-			B58-0964-13	CAUTION CARD (UL)	KY1K1	
-			B58-0964-13	CAUTION CARD (UL)	Y2	
-			B58-0966-13	CAUTION CARD (PL)	M1	
-			B58-0967-03	CAUTION CARD (PL)	P1P2	
-			B58-1546-03	CAUTION CARD	V	
-			B59-1104-00	SERVICE DIRECTORY	Y1Y2	
-		*	B60-3598-00	INSTRUCTION MANUAL(ENG)	KP1Y1	
-		*	B60-3598-00	INSTRUCTION MANUAL(ENG)	K1P2Y2	
-		*	B60-3598-00	INSTRUCTION MANUAL(ENG)	M1	
-		*	B60-3600-00	INSTRUCTION MANUAL(FRN)	P1P2	
-		*	B60-3602-00	INSTRUCTION MANUAL(SPN,CHN)M1	V	
-		*	B60-3603-00	INSTRUCTION MANUAL(CHAINA)	KP1Y1	
-		*	B60-3618-00	INSTRUCTION MANUAL(ENG)	K1P2Y2	
-		*	B60-3618-00	INSTRUCTION MANUAL(ENG)	M1	
-		*	B60-3618-00	INSTRUCTION MANUAL(ENG)	P1P2	
-		*	B60-3620-00	INSTRUCTION MANUAL(FRN)	V	
-		*	B60-3621-00	INSTRUCTION MANUAL(SPN,CHN)M1		
-		*	B60-3622-00	INSTRUCTION MANUAL(CHN)		
Δ 615	1A	*	E03-0115-05	AC PLUG ADAPTER	M1	
Δ 616	1C	*	E30-2605-05	AC POWER CORD	Y1Y2	
Δ 616	1C	*	E30-2824-15	AC POWER CORD	V	
Δ 616	1C	*	E30-2842-05	AC POWER CORD	M1	
Δ 616	1C	*	E30-2849-05	AC POWER CORD	KP1K1	
Δ 616	1C	*	E30-2849-05	AC POWER CORD	P2	
Δ 617	2B,1C	*	E35-2016-05	FLAT CABLE		
618	2A,2B	*	E35-2017-05	FLAT CABLE		
619	2A,1C	*	E35-2018-05	FLAT CABLE		
Δ F1			F50-0076-05	FUSE(5X20)	125V 6.3A	K1P2
Δ F1			F50-0077-05	FUSE(5X20)	125V 8A	KP1
Δ F1 ,2			F50-0099-05	FUSE(5X20)	250V T2A	Y2
Δ F1 ,2			F50-0101-05	FUSE(5X20)	250V T3.15A	Y1M1V

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2

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
-		*	H10-7418-02	POLYSTYRENE FOAMED FIXTURE L		
-		*	H10-7419-02	POLYSTYRENE FOAMED FIXTURE R		
-		*	H25-0232-04	PROTECTION BAG (235X350X0.03)		
-		*	H25-0391-04	PROTECTION BAG		
-		*	H50-2715-04	ITEM CARTON CASE	KP1	
-		*	H50-2716-04	ITEM CARTON CASE	M1	
-		*	H50-2717-04	ITEM CARTON CASE	Y1	
-		*	H50-2719-04	ITEM CARTON CASE	K1P2	
-		*	H50-2720-04	ITEM CARTON CASE	V	
-		*	H50-2843-04	ITEM CARTON CASE	Y2	
625	2C		J02-1405-03	FOOT (D=46,H=14.5,T)		
627	1B,2C		J19-5787-04	UNIT HOLDER		
628	1C		J19-5919-05	UNIT HOLDER		
635	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
640	2A		K27-2274-04	KNOB (BUTTON)	Y1M1V	
641	2A	*	K29-6879-02	KNOB		
642	2A	*	K29-6880-04	KNOB		
643	2A	*	K29-6881-04	KNOB		
644	2A	*	K29-6898-03	KNOB		
Δ 650	1B	*	L07-2485-05	POWER TRANSFORMER	KP1	
Δ 650	1B	*	L07-2487-05	POWER TRANSFORMER	Y1M1	
Δ 650	1B	*	L07-2494-05	POWER TRANSFORMER	V	
Δ 650	1B	*	L07-2496-05	POWER TRANSFORMER	K1P2	
Δ 650	1B	*	L07-2498-05	POWER TRANSFORMER	Y2	
655	1A		T90-0810-05	LEAD WIRE ANTENNA		
656	1A		T90-0833-05	LOOP ANTENNA		
POWER SUPPLY (X00-2870-10)						
C5 ,6			CK45FF1H103Z	CERAMIC	0.010UF	Z
C7			CE04EW1E331M	ELECTRO	330UF	25WV
C8			CK45FB1H102K	CERAMIC	1000PF	K
C10			CE04LW1C470M	ELECTRO	47UF	16WV
C11			CE04LW1V4R7M	ELECTRO	4.7UF	35WV
C13 ,14			CC45FSL1H101J	CERAMIC	100PF	J
CN1			E40-4245-05	PIN ASSY		V
CN1			E40-4245-05	PIN ASSY		Y1M1Y2
CN2			E40-4245-05	PIN ASSY		KP1K1
CN2			E40-4245-05	PIN ASSY		P2V
CN3			E40-4245-05	PIN ASSY		V
CN3			E40-4245-05	PIN ASSY		Y1M1Y2
CN4			E40-8197-05	SOCKET FOR PIN ASSY		
CN11			E40-4281-05	PIN ASSY		Y1M1Y2
CN12			E40-3247-05	PIN ASSY		
Δ J1			E03-0148-05	AC OUTLET		KP1Y1
Δ J1			E03-0148-05	AC OUTLET		K1P2Y2
Δ J1			E03-0149-05	AC OUTLET		M1
Δ J1			E03-0361-05	AC OUTLET		V
Δ J2			E11-0295-05	PHONE JACK (3P)		
CN5 ,6			J13-0075-05	FUSE CLIP		
CN7 ,8			J13-0075-05	FUSE CLIP		
E1			J11-0808-05	WIRE CLAMPER		Y1M1Y2
Δ T1			L07-2127-05	POWER TRANSFORMER		KP1K1
Δ T1			L07-2127-05	POWER TRANSFORMER		P2

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③

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Δ T1			L07-2128-05	POWER TRANSFORMER	Y1M1Y2	
Δ T1			L07-2129-05	POWER TRANSFORMER	V	
Δ R1			R92-1844-05	CARBON 3.3M J 1/2W	KP1K1	
Δ R1			R92-1844-05	CARBON 3.3M J 1/2W	P2	
Δ K1			S76-0070-05	MAGNETIC RELAY	V	
Δ S1			S68-0088-05	PUSH SWITCH	Y1M1Y2	
Δ S1			S68-0088-05	PUSH SWITCH	Y1M1Y2	
Δ S2 ,3			S62-0001-05	SLIDE SWITCH		
Δ D1 -4			S5688B	DIODE		
Δ D1 -4			1SR139-400	DIODE		
Δ D5			MTZJ6.2(B)	ZENER DIODE		
Δ D5			RD6.2ES(B2)	ZENER DIODE		
Δ D6 ,7			HSS104A	DIODE		
Δ D6 ,7			1SS133	DIODE		
Δ D8			MTZJ2.7(B)	ZENER DIODE		
Δ D8			RD2.7ES(B2)	ZENER DIODE		
Δ D9			HSS104A	DIODE		
Δ D9			1SS133	DIODE		
Δ Q1			2SC3940A(R,S)	TRANSISTOR		
Δ Q2			2SC2003(L,K)	TRANSISTOR		
TUNER (X05-4820-10)						
C1			CK73FB1H223K	CHIP C 0.022UF K		
C3			CK73FB1H103K	CHIP C 0.010UF K		
C5 ,6			CK73FB1H103K	CHIP C 0.010UF K		
C7			CE04LW1C470M	ELECTRO 47UF 16WV		
C8			CK73EB1H103K	CHIP C 0.010UF K		
C10			CE04LW1C470M	ELECTRO 47UF 16WV		
C11 -13			CK73FB1H473K	CHIP C 0.047UF K		
C14			CE04LW1C100M	ELECTRO 10UF 16WV		
C15			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C16			C90-3251-05	ELECTRO 0.47UF 50WV		
C17			C90-3253-05	ELECTRO 1.0UF 50WV		
C18			CC73FCH1H470J	CHIP C 47PF J		
C19			C90-3217-05	ELECTRO 10UF 10WV		
C20			CK73FB1H473K	CHIP C 0.047UF K		
C21			C90-3241-05	ELECTRO 3.3UF 35WV		
C22			CK73FB1H473K	CHIP C 0.047UF K		
C23			CE04LW1C100M	ELECTRO 10UF 16WV		
C24			CK73FB1H331K	CHIP C 330PF K		
C25			CK73FB1H391K	CHIP C 390PF K		
C26			CK73FB1H223K	CHIP C 0.022UF K		
C27			CE04HW1E4R7M	NP-ELEC 4.7UF 25WV		
C28 ,29			C90-3240-05	ELECTRO 2.2UF 35WV		
C30 ,31			CK73FB1H223K	CHIP C 0.022UF K	V	
C30 ,31			CK73FB1H223K	CHIP C 0.022UF K	Y1M1Y2	
C30 ,31			CK73FB1H333K	CHIP C 0.033UF K	KP1K1	
C30 ,31			CK73FB1H333K	CHIP C 0.033UF K	P2	
C32			CE04LW1C100M	ELECTRO 10UF 16WV		
C33 ,34			CK73FB1H103K	CHIP C 0.010UF K	V	
C33 ,34			CK73FB1H103K	CHIP C 0.010UF K	Y1M1Y2	
C36			CK73FB1H103K	CHIP C 0.010UF K		
C37 ,38			C90-3217-05	ELECTRO 10UF 10WV		
C39			CC73FCH1H060D	CHIP C 6.0PF D		

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④

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C40			CC73FCH1H020C	CHIP C 2.0PF C		
C41			CC73FCH1H220J	CHIP C 22PF J		
C42			CC73FCH1H270J	CHIP C 27PF J		
C43			CC73FCH1H220J	CHIP C 22PF J		
C44			CK73FB1H471K	CHIP C 470PF K		
C45			CC73FCH1H220J	CHIP C 22PF J		
C46			CE04LW1C100M	ELECTRO 10UF 16WV		
C47			CK73FB1H102K	CHIP C 1000PF K		
C48			CE04LW1C470M	ELECTRO 47UF 16WV		
C49			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C50			CC73FSL1H101J	CHIP C 100PF J		
C51			CK73FB1H471K	CHIP C 470PF K		
C52			CC73FSL1H101J	CHIP C 100PF J		
C72			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C73			CE04LW1C470M	ELECTRO 47UF 16WV		
C75			CC73FCH1H040C	CHIP C 4.0PF C		
C76			CC73FCH1H470J	CHIP C 47PF J		
C78			CK73FB1H223K	CHIP C 0.022UF K		
C81			CK73FF1C105Z	CHIP C 1.0UF Z		
C83			CC73FSL1H101J	CHIP C 100PF J		
C84 ,85			CK73FB1H223K	CHIP C 0.022UF K		
C86			CK73FB1H471K	CHIP C 470PF K		
CN1			E40-9831-05	SOCKET FOR PIN ASSY		
J1			E70-0080-05	LOCK TERMINAL BOARD		
E1			F10-1108-04	SHIELDING PLATE		
CF1 ,2			L72-0531-05	CERAMIC FILTER		
CF1 ,2			L72-0531-05	CERAMIC FILTER		
CF1 ,2			L72-0596-05	CERAMIC FILTER		
CF1 ,2			L72-0596-05	CERAMIC FILTER		
CF3		*	L72-0607-05	CERAMIC FILTER		
L1			L39-1366-05	COMBINATION COIL		
L2			L40-1091-82	SMALL FIXED INDUCTOR(1.0UH)		
L3			L30-0911-05	AM IFT		
L9		*	L40-1001-82	SMALL FIXED INDUCTOR(10UH)		
X1		*	L77-2187-05	CRYSTAL RESONATOR		
R1			RK73FB2A101J	CHIP R 100 J 1/10W		
R4			RK73FB2A681J	CHIP R 680 J 1/10W		
R5			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R6			RK73FB2A221J	CHIP R 220 J 1/10W		
R7			RK73FB2A821J	CHIP R 820 J 1/10W		
R8			RK73FB2A330J	CHIP R 33 J 1/10W		
R9			RK73FB2A391J	CHIP R 390 J 1/10W		
R10			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R11			RK73FB2A330J	CHIP R 33 J 1/10W		
R12			RK73FB2A101J	CHIP R 100 J 1/10W		
R14			RK73FB2A271J	CHIP R 270 J 1/10W		
R16			RK73FB2A220J	CHIP R 22 J 1/10W		
R17			RK73FB2A362J	CHIP R 3.6K J 1/10W		
R18			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R19			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R20			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R23			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R25			RK73FB2A183J	CHIP R 18K J 1/10W		

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R27 ,28 R30 R30 R31 R31			RK73FB2A822J RK73FB2A561J RK73FB2A561J RK73FB2A473J RK73FB2A473J	CHIP R 8.2K J 1/10W CHIP R 560 J 1/10W CHIP R 560 J 1/10W CHIP R 47K J 1/10W CHIP R 47K J 1/10W	V Y1M1Y2 V Y1M1Y2	
R33 ,34 R42 R43 R44 R45			RK73FB2A102J RK73FB2A103J RK73FB2A221J RD14NB2E271J RK73EB2B102J	CHIP R 1.0K J 1/10W CHIP R 10K J 1/10W CHIP R 220 J 1/10W RD 270 J 1/4W CHIP R 1.0K J 1/8W		
R46 R47 R48 R49 R50			RK73FB2A102J RK73EB2B102J RK73FB2A102J RK73FB2A103J RD14NB2E471J	CHIP R 1.0K J 1/10W CHIP R 1.0K J 1/8W CHIP R 1.0K J 1/10W CHIP R 10K J 1/10W RD 470 J 1/4W		
R51 R52 R53 R54 R55			RK73FB2A562J RK73FB2A101J RK73FB2A222J RK73FB2A102J RK73FB2A333J	CHIP R 5.6K J 1/10W CHIP R 100 J 1/10W CHIP R 2.2K J 1/10W CHIP R 1.0K J 1/10W CHIP R 33K J 1/10W		
R56 ,57 R58 R59 R72 ,73 R72 ,73			RK73FB2A102J RK73FB2A123J RK73FB2A122J RK73FB2A153J RK73FB2A153J	CHIP R 1.0K J 1/10W CHIP R 12K J 1/10W CHIP R 1.2K J 1/10W CHIP R 15K J 1/10W CHIP R 15K J 1/10W	KP1K1 P2	
R72 ,73 R72 ,73 R74 R75 R76			RK73FB2A822J RK73FB2A822J RK73FB2A473J RK73FB2A822J RK73FB2A182J	CHIP R 8.2K J 1/10W CHIP R 8.2K J 1/10W CHIP R 47K J 1/10W CHIP R 8.2K J 1/10W CHIP R 1.8K J 1/10W	V Y1M1Y2	
R78 R81 R83 R84 R85 -87			RK73FB2A821J RS14KB3A151J RK73FB2A102J RK73EB2B102J RK73FB2A105J	CHIP R 820 J 1/10W FL-PROOF RS 150 J 1W CHIP R 1.0K J 1/10W CHIP R 1.0K J 1/8W CHIP R 1.0M J 1/10W		
R88 VR1 W51 ,52 W54 ,55 W56			RK73FB2A563J R32-0037-05 R92-0670-05 R92-0670-05 R92-0670-05	CHIP R 56K J 1/10W SEMI FIXED VARIABLE RESISTOR CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM	V	
W56 W57 W59 ,60 W80 W82 -85			R92-0670-05 R92-0670-05 R92-0670-05 R92-0679-05 R92-0679-05	CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM	Y1M1Y2	
D1 D1 D1 D3 D3			DA204U MA143A 1SS302 MTZJ8.2(B) RD8.2ES(B2)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE		
D4 D4 D5 D5 D8			MTZJ5.1(B) RD5.1ES(B2) MTZJ2.7(B) RD2.7ES(B2) MA111	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE DIODE		

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D9 D9 D13 IC1 IC2			MTZJ3.3(B) RD3.3ES(B2) MA111 LA1838 LC72131	ZENER DIODE ZENER DIODE DIODE ANALOGUE IC MOS-IC		
Q1 Q1 Q2 Q2 Q3 ,4			2SC4081(R,S) 2SC4116(Y,GR) 2SA1576A(R,S) 2SA1586(Y,GR) 2SC4081(R,S)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	V	
Q3 ,4 Q3 ,4 Q3 ,4 Q10 ,11 Q12			2SC4081(R,S) 2SC4116(Y,GR) 2SC4116(Y,GR) 2SD1757K 2SA1576A(R,S)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	Y1M1Y2 V Y1M1Y2	
Q12 Q14 Q14			2SA1586(Y,GR) 2SA1576A(R,S) 2SA1586(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR		
A1			W02-2622-05	FM FRONT-END ASSY		
SURROUND (X08-2840-10)						
C1 -4 C5 ,6 C7 -9 C10 C11 ,12			CK73FB1E104K CC73FSL1H102J CK73FB1E104K CC73FSL1H331J CC73FCH1H150J	CHIP C 0.10UF K CHIP C 1000PF J CHIP C 0.10UF K CHIP C 330PF J CHIP C 15PF J		
C13 ,14 C15 C16 C17 C18			CC73FCH1H180J CK73FB1H103K CK73FB1E104K CK73FB1H103K CC73FSL1H102J	CHIP C 18PF J CHIP C 0.010UF K CHIP C 0.10UF K CHIP C 0.010UF K CHIP C 1000PF J		
C19 C20 C21 C22 ,23 C24 ,25			CK73FB1E104K CE04LW1H4R7M CC73FCH1H330J CC73FCH1H120J CC73FCH1H150J	CHIP C 0.10UF K ELECTRO 4.7UF 50WV CHIP C 33PF J CHIP C 12PF J CHIP C 15PF J		
C26 C27 C28 C29 C30 -32			CE04LW1E470M CK73FB1E104K CC73FSL1H470J CC73FCH1H220J CK73FB1E104K	ELECTRO 47UF 25WV CHIP C 0.10UF K CHIP C 47PF J CHIP C 22PF J CHIP C 0.10UF K		
C33 ,34 C35 C36 C37 C38			CC73FCH1H220J CC73FSL1H102J CK73FB1H822K CK73FB1H103K CE04LW1H2R2M	CHIP C 22PF J CHIP C 1000PF J CHIP C 8200PF K CHIP C 0.010UF K ELECTRO 2.2UF 50WV		
C39 C50 -52 C55 C56 C57			CK73FB1E104K CE04LW1C100M CC73FSL1H470J CE04LW0J471M CE04LW1A470M	CHIP C 0.10UF K ELECTRO 10UF 16WV CHIP C 47PF J ELECTRO 470UF 6.3WV ELECTRO 47UF 10WV		
C58 ,59 C60 ,61 C63 C70			CK73FB1H103K CC73FSL1H221J CC73FSL1H470J CE04LW1C102M	CHIP C 0.010UF K CHIP C 220PF J CHIP C 47PF J ELECTRO 1000UF 16WV		

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C72 ,73 C74 C77 ,78 C81 C83			CK73FF1C224Z CE04LW1C101M CK73FB1E104K CE04LW1C101M CE04LW1A101M	CHIP C 0.22UF Z ELECTRO 100UF 16WV CHIP C 0.10UF K ELECTRO 100UF 16WV ELECTRO 100UF 10WV		
C86 ,87 C91 C92 C93 -95 C96			CK73FB1E104K CE04LW1C101M CE04LW1A101M CK73FB1E104K CE04LW1C101M	CHIP C 0.10UF K ELECTRO 100UF 16WV ELECTRO 100UF 10WV CHIP C 0.10UF K ELECTRO 100UF 16WV		
C97 C101,102 C103-106 C107,108 C109			CE04LW1A101M CC73FCH1H220J CC73FSL1H101J CC73FSL1H681J CK73FB1H103K	ELECTRO 100UF 10WV CHIP C 22PF J CHIP C 100PF J CHIP C 680PF J CHIP C 0.010UF K		
C110 C111,112 C113-120 C121,122 C123,124			CC73FSL1H101J CE04LW1H100M CC73FSL1H101J CE04LW1H4R7M CC73FSL1H102J	CHIP C 100PF J ELECTRO 10UF 50WV CHIP C 100PF J ELECTRO 4.7UF 50WV CHIP C 1000PF J		
C125,126 C127,128 C129 C130 C131,132			CK73FB1H682K CK73FB1H182K CK73FB1H103K CC73FSL1H101J CE04LW1H4R7M	CHIP C 6800PF K CHIP C 1800PF K CHIP C 0.010UF K CHIP C 100PF J ELECTRO 4.7UF 50WV		
C133,134 C135-138 C139,140 C141,142 C143,144			CC73FSL1H102J CC73FSL1H101J CK73FB1H182K CC73FSL1H101J CK73FB1H682K	CHIP C 1000PF J CHIP C 100PF J CHIP C 1800PF K CHIP C 100PF J CHIP C 6800PF K		
C145 C146-150 C151,152 C153,154 C155-158			CK73FB1H103K CC73FSL1H101J CE04LW1H4R7M CC73FSL1H102J CC73FSL1H101J	CHIP C 0.010UF K CHIP C 100PF J ELECTRO 4.7UF 50WV CHIP C 1000PF J CHIP C 100PF J		
C159,160 C161,162 C163,164 C165 C166			CK73FB1H182K CC73FSL1H101J CK73FB1H682K CK73FB1H103K CC73FSL1H101J	CHIP C 1800PF K CHIP C 100PF J CHIP C 6800PF K CHIP C 0.010UF K CHIP C 100PF J		
C167 C168-170 C171-174 C175-178 C179			CE04LW1H220M CK73FB1H103K CQ92FM1H823J CC73FSL1H101J CK73FB1H103K	ELECTRO 22UF 50WV CHIP C 0.010UF K MYLAR 0.082UF J CHIP C 100PF J CHIP C 0.010UF K		
C180 C181,182 C183,184 C185,186 C187			CC73FSL1H101J CE04LW1E470M CE04LW1H220M CC73FSL1H101J CK73FB1H103K	CHIP C 100PF J ELECTRO 47UF 25WV ELECTRO 22UF 50WV CHIP C 100PF J CHIP C 0.010UF K		
C188 C191-194 C195-198 C199 C200			CC73FSL1H101J CQ92FM1H823J CC73FSL1H101J CK73FB1H103K CC73FSL1H101J	CHIP C 100PF J MYLAR 0.082UF J CHIP C 100PF J CHIP C 0.010UF K CHIP C 100PF J		

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C201,202 C203-206 C207 C208 C209			CQ92FM1H823J CC73FSL1H101J CQ92FM1H104J CC73FSL1H101J CQ92FM1H154J	MYLAR 0.082UF J CHIP C 100PF J MYLAR 0.10UF J CHIP C 100PF J MYLAR 0.15UF J		
C210 C211 C212 C213 C214			CC73FSL1H101J CQ92FM1H393J CC73FSL1H101J CE04LW1H2R2M CK73FB1H103K	CHIP C 100PF J MYLAR 0.039UF J CHIP C 100PF J ELECTRO 2.2UF 50WV CHIP C 0.010UF K		
C216,217 C218 C219,220 C223,224 C225			CC73FSL1H101J CE04LW1H2R2M CK73FB1H103K CC73FSL1H102J CE04LW1H220M	CHIP C 100PF J ELECTRO 2.2UF 50WV CHIP C 0.010UF K CHIP C 1000PF J ELECTRO 22UF 50WV		
C226-230 C231			CE04LW1H4R7M CE04LW1H470M	ELECTRO 4.7UF 50WV ELECTRO 47UF 50WV		
CN1 CN2 CN3 J1 J2			E40-8253-05 E40-3256-05 E40-4248-05 E63-1022-05 E63-1021-05	FLAT CABLE CONNECTOR PIN ASSY PIN ASSY PHONO JACK PHONO JACK		
J3 J4			E63-1020-05 E11-0347-05	PHONO JACK MINIATURE PHONE JACK(2P)		
E1			J11-0808-05	WIRE CLAMPER		
L1 L2 L3 L4 ,5 X1			L92-0044-05 L79-1216-05 L92-0044-05 L79-1216-05 L77-2220-05	FERRITE CORE LINE FILTER FERRITE CORE LINE FILTER CRYSTAL RESONATOR(10MHZ)		
X2			L77-2221-05	CRYSTAL RESONATOR(12.288MHZ)		
R1 R2 R3 R4 R5 -15			RK73FB2A105J RK73FB2A821J RK73FB2A201J RK73FB2A183J RK73FB2A221J	CHIP R 1.0M J 1/10W CHIP R 820 J 1/10W CHIP R 200 J 1/10W CHIP R 18K J 1/10W CHIP R 220 J 1/10W		
R16 R17 ,18 R19 R20 R21			RK73FB2A104J RK73FB2A102J RK73FB2A221J RK73FB2A104J RK73FB2A221J	CHIP R 100K J 1/10W CHIP R 1.0K J 1/10W CHIP R 220 J 1/10W CHIP R 100K J 1/10W CHIP R 220 J 1/10W		
R22 R23 ,24 R25 -27 R28 R29			RK73FB2A102J RK73FB2A221J RK73FB2A222J RK73FB2A105J RK73FB2A750J	CHIP R 1.0K J 1/10W CHIP R 220 J 1/10W CHIP R 2.2K J 1/10W CHIP R 1.0M J 1/10W CHIP R 75 J 1/10W		
R30 R31 R32 R33 -36 R37			RK73FB2A472J RK73FB2A473J RK73FB2A472J RK73FB2A102J RK73FB2A473J	CHIP R 4.7K J 1/10W CHIP R 47K J 1/10W CHIP R 4.7K J 1/10W CHIP R 1.0K J 1/10W CHIP R 47K J 1/10W		
R50			RK73FB2A750J	CHIP R 75 J 1/10W		

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R51 R52 ,53 R54 R55 ,56 R57 ,58			RK73FB2A332J RK73FB2A750J RK73FB2A332J RK73FB2A750J RS14KB3A391J	CHIP R 3.3K J 1/10W CHIP R 75 J 1/10W CHIP R 3.3K J 1/10W CHIP R 75 J 1/10W FL-PROOF RS 390 J 1W		
R59 R61 -63 R64 R66 R67			RD14NB2E1R0J RD14NB2E2R2J RD14NB2E1R0J RD14NB2E2R2J RD14NB2E1R0J	RD 1 J 1/4W RD 2.2 J 1/4W RD 1 J 1/4W RD 2.2 J 1/4W RD 1 J 1/4W		
R68 R69 R70 R71 R72			RD14NB2E2R2J RK73FB2A203J RK73FB2A101J RK73FB2A473J RK73FB2A472J	RD 2.2 J 1/4W CHIP R 20K J 1/10W CHIP R 100 J 1/10W CHIP R 47K J 1/10W CHIP R 4.7K J 1/10W		
R101-104 R105,106 R107,108 R111,112 R113,114			RK73FB2A203J RK73FB2A101J RK73FB2A102J RK73FB2A104J RK73FB2A512J	CHIP R 20K J 1/10W CHIP R 100 J 1/10W CHIP R 1.0K J 1/10W CHIP R 100K J 1/10W CHIP R 5.1K J 1/10W		
R115,116 R117-120 R121,122 R131,132 R133,134			RK73FB2A101J RK73FB2A162J RK73FB2A101J RK73FB2A104J RK73FB2A512J	CHIP R 100 J 1/10W CHIP R 1.6K J 1/10W CHIP R 100 J 1/10W CHIP R 100K J 1/10W CHIP R 5.1K J 1/10W		
R135,136 R137,138 R139-142 R143,144 R151,152			RK73FB2A432J RK73FB2A392J RK73FB2A162J RK73FB2A101J RK73FB2A104J	CHIP R 4.3K J 1/10W CHIP R 3.9K J 1/10W CHIP R 1.6K J 1/10W CHIP R 100 J 1/10W CHIP R 100K J 1/10W		
R153,154 R155,156 R157,158 R159-162 R163,164			RK73FB2A512J RK73FB2A432J RK73FB2A392J RK73FB2A162J RK73FB2A101J	CHIP R 5.1K J 1/10W CHIP R 4.3K J 1/10W CHIP R 3.9K J 1/10W CHIP R 1.6K J 1/10W CHIP R 100 J 1/10W		
R173,174 R175,176 R177,178 R181,182 R183,184			RK73FB2A153J RK73FB2A303J RK73FB2A101J RK73FB2A104J RK73FB2A101J	CHIP R 15K J 1/10W CHIP R 30K J 1/10W CHIP R 100 J 1/10W CHIP R 100K J 1/10W CHIP R 100 J 1/10W		
R185-188 R189-192 R193,194 R195,196 R201,202			RK73FB2A392J RK73FB2A222J RK73FB2A101J RK73FB2A224J RK73FB2A153J	CHIP R 3.9K J 1/10W CHIP R 2.2K J 1/10W CHIP R 100 J 1/10W CHIP R 220K J 1/10W CHIP R 15K J 1/10W		
R203,204 R205 R206 R207 R208-210			RK73FB2A303J RK73FB2A153J RK73FB2A303J RK73FB2A123J RK73FB2A163J	CHIP R 30K J 1/10W CHIP R 15K J 1/10W CHIP R 30K J 1/10W CHIP R 12K J 1/10W CHIP R 16K J 1/10W		
R211-214 R215,216 R217-220 R221,222 R223-225			RK73FB2A101J RK73FB2A224J RK73FB2A101J RK73FB2A203J RK73FB2A393J	CHIP R 100 J 1/10W CHIP R 220K J 1/10W CHIP R 100 J 1/10W CHIP R 20K J 1/10W CHIP R 39K J 1/10W		

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R226			RK73FB2A123J	CHIP R 12K J 1/10W		
S1			S62-0034-05	SLIDE SWITCH		
D1 ,2			DA204U	DIODE		
D1 ,2			1SS302	DIODE		
D3 ,4			UDZ5.1B	ZENER DIODE		
D5			D2SBA20F03	DIODE		
D7 -9			UDZ6.2B	ZENER DIODE		
IC1			YSS248	MOS-IC		
IC2			CS4226-KQ	MOS-IC		
IC2			CS4226KQC	MOS-IC		
IC3			TC74HCU04AF	IC(HEX INVERTER SMD)		
IC4			NJM2279M	ANALOGUE IC		
IC5			TC9162AF	MOS-IC		
IC6			TC9164AF	MOS-IC		
IC8 -10			TA7805SB	ANALOGUE IC		
IC11			NJM4565M	IC(OP AMP X2)		
IC12			NJM4580ED	ANALOGUE IC		
IC13			NJM4565M	IC(OP AMP X2)		
IC14			NJM4580ED	ANALOGUE IC		
IC15			NJM4565M	IC(OP AMP X2)		
IC16			NJM4580ED	ANALOGUE IC		
IC17-19			NJM4565M	IC(OP AMP X2)		
IC20			NJM4580ED	ANALOGUE IC		
IC21			NJM4565M	IC(OP AMP X2)		
IC22,23			NJM4580ED	ANALOGUE IC		
IC24			TC7W241FU	MOS-IC		
Q1			2SC4081(R,S)	TRANSISTOR		
Q1			2SC4116(Y,GR)	TRANSISTOR		
Q2			2SA1576A(R,S)	TRANSISTOR		
Q2			2SA1586(Y,GR)	TRANSISTOR		
A1			W02-1181-05	OPTIC RECEIVING MODULE		
AUDIO (X09-4890-10)						
D501,502			B30-2513-05	LED(RED)		
D527			B30-2513-05	LED(RED)		
C1 ,2			CK45FF1H103Z	CERAMIC 0.010UF Z		KP1K1
C1 ,2			CK45FF1H103Z	CERAMIC 0.010UF Z		P2V
C3			C91-1480-05	MP 0.22UF 250WV		Y1M1Y2
C5 ,6			C90-3760-05	ELECTRO 4700UF 75WV		KP1Y1
C5 ,6			C90-3760-05	ELECTRO 4700UF 75WV		M1
C5 ,6			C90-3761-05	ALMINIUM ELECTROLYTIC C.		K1P2Y2
C5 ,6			C90-3762-05	ALMINIUM ELECTROLYTIC C.		V
C7 ,8			C90-3763-05	ALMINIUM ELECTROLYTIC C.		V
C7 ,8			C90-3776-05	ALMINIUM ELECTROLYTIC C.		KP1Y1
C7 ,8			C90-3776-05	ALMINIUM ELECTROLYTIC C.		M1
C9			CE04LW1V222M	ELECTRO 2200UF 35WV		
C10			CE04LW1V471M	ELECTRO 470UF 35WV		
C11 -14			CK73FF1C224Z	CHIP C 0.22UF Z		
C15 ,16			CE04LW1E101M	ELECTRO 100UF 25WV		
C18			CE04LW1J220M	ELECTRO 22UF 63WV		
C19			CE04LW1V470M	ELECTRO 47UF 35WV		
C21 ,22			CE04LW1H470M	ELECTRO 47UF 50WV		KP1Y1
C21 ,22			CE04LW1H470M	ELECTRO 47UF 50WV		M1V

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C23 -26			CE04LW1H470M	ELECTRO 47UF 50WV	K1P2Y2	
C23 -26			CE04LW2A100M	ELECTRO 10UF 100WV	KP1Y1	
C23 -26			CE04LW2A100M	ELECTRO 10UF 100WV	M1V	
C27 ,28			CC73FSL1H151J	CHIP C 150PF J		
C29 ,30			CE04LW1H470M	ELECTRO 47UF 50WV	KP1Y1	
C29 ,30			CE04LW1H470M	ELECTRO 47UF 50WV	M1V	
C31 ,32			CE04LW1H470M	ELECTRO 47UF 50WV	K1P2Y2	
C31 ,32			CE04LW2A100M	ELECTRO 10UF 100WV	KP1Y1	
C31 ,32			CE04LW2A100M	ELECTRO 10UF 100WV	M1V	
C33 ,34			CK45FB1H392K	CERAMIC 3900PF K	K1P2Y2	
C33 ,34			CK45FB2H392K	CERAMIC 3900PF K	KP1Y1	
C33 ,34			CK45FB2H392K	CERAMIC 3900PF K	M1V	
C35			CE04LW0J221M	ELECTRO 220UF 6.3WV		
C36			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C37			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C38			CE04HW1E100M	NP-ELEC 10UF 25WV		
C39 ,40			CK45FB1H392K	CERAMIC 3900PF K	K1P2Y2	
C39 ,40			CK45FB2H392K	CERAMIC 3900PF K	KP1Y1	
C39 ,40			CK45FB2H392K	CERAMIC 3900PF K	M1V	
C41			CE04LW1A101M	ELECTRO 100UF 10WV		
C42			CE04LW1C330M	ELECTRO 33UF 16WV		
C101,102			CC73FSL1H390J	CHIP C 39PF J		
C103,104			CE04LW1H100M	ELECTRO 10UF 50WV		
C105,106			CC73FSL1H820J	CHIP C 82PF J		
C107,108			CE04LW1A470M	ELECTRO 47UF 10WV		
C109,110			CC45FSL1H101J	CERAMIC 100PF J		
C111,112			CQ93FMG1H123J	MYLAR 0.012UF J		
C113,114			CK45FB1H332K	CERAMIC 3300PF K		
C115,116			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C117			CC45FSL1H101J	CERAMIC 100PF J		
C118			CK45FF1H103Z	CERAMIC 0.010UF Z		
C119,120			CC73FSL1H221J	CHIP C 220PF J		
C123,124			CC73FSL1H221J	CHIP C 220PF J		
C127,128			CC73FSL1H221J	CHIP C 220PF J		
C131,132			CC73FSL1H221J	CHIP C 220PF J		
C135,136			CC73FSL1H221J	CHIP C 220PF J		
C139,140			CC73FSL1H221J	CHIP C 220PF J		
C143,144			CC73FSL1H221J	CHIP C 220PF J		
C147,148			CC73FSL1H221J	CHIP C 220PF J		
C151,152			CC73FSL1H221J	CHIP C 220PF J		
C155,156			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C157-162			CC73FSL1H101J	CHIP C 100PF J		
C163,164			CE04LW1C220M	ELECTRO 22UF 16WV		
C165			CC45FSL1H101J	CERAMIC 100PF J		
C166-168			CK45FF1H103Z	CERAMIC 0.010UF Z		
C169,170			CC73FSL1H221J	CHIP C 220PF J		
C171,172			CK45FF1H103Z	CERAMIC 0.010UF Z		
C200			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C201			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
C202			CQ93FMG1H153J	MYLAR 0.015UF J		
C203,204			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C205,206			CK73FB1H222K	CHIP C 2200PF K		
C207-210			CC73FSL1H101J	CHIP C 100PF J		
C211			CQ93FMG1H822J	MYLAR 8200PF J		
C212			CC73FSL1H221J	CHIP C 220PF J		

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C219			CQ93FMG1H822J	MYLAR 8200PF J		
C220			CQ93FMG1H153J	MYLAR 0.015UF J		
C221			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
C223,224			CE04LW1C100M	ELECTRO 10UF 16WV		
C226-228			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C229,230			CC73FSL1H471J	CHIP C 470PF J		
C233,234			CC73FSL1H101J	CHIP C 100PF J		
C237			CC45FSL1H101J	CERAMIC 100PF J		
C238			CK45FF1H103Z	CERAMIC 0.010UF Z		
C239,240			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C241,242			CC73FSL1H471J	CHIP C 470PF J		
C245,246			CC73FSL1H101J	CHIP C 100PF J		
C251,252			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C253,254			CC73FSL1H471J	CHIP C 470PF J		
C257,258			CC73FSL1H101J	CHIP C 100PF J		
C263,264			CC73FSL1H821J	CHIP C 820PF J		
C265,266			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C267,268			CE04LW1A101M	ELECTRO 100UF 10WV		
C271,272			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C273,274			CE04LW1A101M	ELECTRO 100UF 10WV		
C277			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C279			CE04LW1A101M	ELECTRO 100UF 10WV		
C281,282			CC45FCH1H100D	CERAMIC 10PF D		
C283-285			CC45FCH1H150J	CERAMIC 15PF J		
C287,288			CK73FB1H102K	CHIP C 1000PF K		
C289,290			CQ93FMG1H104J	MYLAR 0.10UF J		
C293,294			CK73FB1H102K	CHIP C 1000PF K		
C295,296			CQ93FMG1H104J	MYLAR 0.10UF J		
C299			CK73FB1H102K	CHIP C 1000PF K		
C301			CQ93FMG1H104J	MYLAR 0.10UF J		
C305-308			CC45FSL1H101J	CERAMIC 100PF J		
C309-311			CK45FF1H472Z	CERAMIC 4700PF Z		
C313-316			CK45FF1H472Z	CERAMIC 4700PF Z		
C319,320			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C321-325			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C326-328			CE04LW1H100M	ELECTRO 10UF 50WV		
C329-334			CE04LW1C470M	ELECTRO 47UF 16WV		
C501			CK45FF1H103Z	CERAMIC 0.010UF Z		
C502			CQ93FMG1H104J	MYLAR 0.10UF J		
C503			CK45FF1H103Z	CERAMIC 0.010UF Z		
C504			CK73FB1H103K	CHIP C 0.010UF K		
C505			CK45FF1H103Z	CERAMIC 0.010UF Z		
C506			CK45FB1H102K	CERAMIC 1000PF K		
C507			CK45FF1H103Z	CERAMIC 0.010UF Z		
C508,509			CE04LW1A101M	ELECTRO 100UF 10WV		
C511-513			CK45FF1H103Z	CERAMIC 0.010UF Z		
C514			CK73FB1H103K	CHIP C 0.010UF K		
C517			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C518-521			CK45FF1H103Z	CERAMIC 0.010UF Z		
C525			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C526			C90-3214-05	ELECTRO 100UF 6.3WV		
C529,530			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C531			CK73FB1H103K	CHIP C 0.010UF K		
C532			CK73FB1H102K	CHIP C 1000PF K		
C534			C90-1827-05	ELECTRO 0.047F 5.5WV		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C534			C90-1827-05	ELECTRO 0.047F 5.5WV	Y1M1Y2	
C535			CE04LW0J471M	ELECTRO 470UF 6.3WV	KP1K1	
C535			CE04LW0J471M	ELECTRO 470UF 6.3WV	P2	
CN1			E40-4299-05	PIN ASSY		
CN8			E40-8251-05	FLAT CABLE CONNECTOR		
CN9			E40-9848-05	PIN ASSY		
CN11		*	E40-8254-05	FLAT CABLE CONNECTOR		
CN12			E40-8196-05	PIN ASSY		
CN13			E40-4248-05	PIN ASSY		
CN51			E40-8258-05	FLAT CABLE CONNECTOR		
CN52			E40-8253-05	FLAT CABLE CONNECTOR		
CN53			E40-8250-05	FLAT CABLE CONNECTOR		
J1			E63-0172-05	PHONO JACK		
J2 ,3			E63-0173-05	PHONO JACK		
J4			E63-1015-05	PHONO JACK		
J5			E70-0089-05	SCREW TERMINAL BOARD		
J6			E70-0068-05	LOCK TERMINAL BOARD		
J7			E63-0172-05	PHONO JACK		
L1 -5			L39-1373-05	PHASE COMPENSATION COIL		
X501			L78-0290-05	RESONATOR (8MHZ)		
R1 ,2			RK73FB2A273J	CHIP R 27K J 1/10W	K1P2Y2	
R1 ,2			RK73FB2A513J	CHIP R 51K J 1/10W	KP1Y1	
R1 ,2			RK73FB2A513J	CHIP R 51K J 1/10W	M1V	
R3 ,4			RK73FB2A273J	CHIP R 27K J 1/10W	KP1Y1	
R3 ,4			RK73FB2A273J	CHIP R 27K J 1/10W	M1V	
R5			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R6			RK73FB2A333J	CHIP R 33K J 1/10W		
R9 ,10			RS14KB3D391J	FL-PROOF RS 390 J 2W		
R11 ,12			RK73FB2A472J	CHIP R 4.7K J 1/10W		
Δ R14			RD14NB2E1R0J	RD 1 J 1/4W		
R15			RK73FB2A513J	CHIP R 51K J 1/10W	V	
R16			RK73FB2A273J	CHIP R 27K J 1/10W	KP1Y1	
R16			RK73FB2A273J	CHIP R 27K J 1/10W	M1V	
R17			RK73FB2A273J	CHIP R 27K J 1/10W		
Δ R18			RD14NB2E4R7J	RD 4.7 J 1/4W		
R19			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R21			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	KP1Y1	
R21			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	M1V	
R22			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	KP1Y1	
R22			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	M1V	
R23 ,24			RD14NB2E103J	RD 10K J 1/4W		
R25 ,26			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	KP1Y1	
R25 ,26			RS14KB3A392J	FL-PROOF RS 3.9K J 1W	M1V	
R27 ,28			RK73FB2A182J	CHIP R 1.8K J 1/10W	V	
R27 ,28			RK73FB2A272J	CHIP R 2.7K J 1/10W	KP1Y1	
R27 ,28			RK73FB2A272J	CHIP R 2.7K J 1/10W	M1	
R27 ,28			RK73FB2A821J	CHIP R 820 J 1/10W	K1P2Y2	
R30			RK73FB2A223J	CHIP R 22K J 1/10W		
R32			RK73FB2A153J	CHIP R 15K J 1/10W		
R34			RK73FB2A473J	CHIP R 47K J 1/10W		
R35			RK73FB2A182J	CHIP R 1.8K J 1/10W	V	
R35			RK73FB2A272J	CHIP R 2.7K J 1/10W	KP1Y1	
R35			RK73FB2A272J	CHIP R 2.7K J 1/10W	M1	
R35			RK73FB2A821J	CHIP R 820 J 1/10W	K1P2Y2	

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Δ R37			RS14KB3A681J	FL-PROOF RS 680 J 1W		
Δ R38 -41			RS14KB3D331J	FL-PROOF RS 330 J 2W		
Δ R42 -44			RS14KB3D391J	FL-PROOF RS 390 J 2W		
R45			RD14NB2E1R0J	RD 1 J 1/4W		
R46			RD14NB2E821J	RD 820 J 1/4W	KP1	
R50			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R51			RK73FB2A473J	CHIP R 47K J 1/10W		
R101,102			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R103,104			RK73FB2A273J	CHIP R 27K J 1/10W		
R105,106			RK73FB2A101J	CHIP R 100 J 1/10W		
R117,118			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R119,120			RK73FB2A224J	CHIP R 220K J 1/10W		
R121,122			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R123,124			RK73FB2A224J	CHIP R 220K J 1/10W		
R125,126			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R127,128			RK73FB2A224J	CHIP R 220K J 1/10W		
R129,130			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R131,132			RK73FB2A224J	CHIP R 220K J 1/10W		
R135,136			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R137,138			RK73FB2A224J	CHIP R 220K J 1/10W		
R139,140			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R141,142			RK73FB2A224J	CHIP R 220K J 1/10W		
R143,144			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R145,146			RK73FB2A224J	CHIP R 220K J 1/10W		
R147,148			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R149,150			RK73FB2A224J	CHIP R 220K J 1/10W		
R151,152			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R153-156			RK73FB2A224J	CHIP R 220K J 1/10W		
R157,158			RK73FB2A4R7J	CHIP R 4.7 J 1/10W		
R165-168			RK73FB2A103J	CHIP R 10K J 1/10W		
R169-172			RK73FB2A223J	CHIP R 22K J 1/10W		
R173,174			RK73FB2A473J	CHIP R 47K J 1/10W		
R175,176			RK73FB2A622J	CHIP R 6.2K J 1/10W		
R177,178			RK73FB2A103J	CHIP R 10K J 1/10W		
R203,204			RK73FB2A102J	CHIP R 1.0K J 1/10W		
Δ R205,206			RK73FB2A100J	CHIP R 10 J 1/10W		
Δ R219			RS14KB3A221J	FL-PROOF RS 220 J 1W		
R220			RS14KB3A271J	FL-PROOF RS 270 J 1W		
R226			RK73FB2A103J	CHIP R 10K J 1/10W		
R227,228			RK73FB2A104J	CHIP R 100K J 1/10W		
R229,230			RK73FB2A133J	CHIP R 13K J 1/10W	K1P2Y2	
R229,230			RK73FB2A133J	CHIP R 13K J 1/10W	V	
R229,230			RK73FB2A912J	CHIP R 9.1K J 1/10W	KP1Y1	
R229,230			RK73FB2A912J	CHIP R 9.1K J 1/10W	M1	
R231,232			RK73FB2A183J	CHIP R 18K J 1/10W		
R237,238			RK73FB2A103J	CHIP R 10K J 1/10W		
R239,240			RK73FB2A104J	CHIP R 100K J 1/10W		
R241,242			RK73FB2A363J	CHIP R 36K J 1/10W	KP1Y1	
R241,242			RK73FB2A363J	CHIP R 36K J 1/10W	M1	
R241,242			RK73FB2A513J	CHIP R 51K J 1/10W	K1P2Y2	
R241,242			RK73FB2A513J	CHIP R 51K J 1/10W	V	
R243,244			RK73FB2A183J	CHIP R 18K J 1/10W		
R249,250			RK73FB2A103J	CHIP R 10K J 1/10W		
R251,252			RK73FB2A104J	CHIP R 100K J 1/10W		
R253			RK73FB2A363J	CHIP R 36K J 1/10W	KP1Y1	

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R253			RK73FB2A363J	CHIP R 36K J 1/10W	M1	
R253			RK73FB2A513J	CHIP R 51K J 1/10W	K1P2Y2	
R253			RK73FB2A513J	CHIP R 51K J 1/10W	V	
R254			RK73FB2A432J	CHIP R 4.3K J 1/10W		
R255,256			RK73FB2A183J	CHIP R 18K J 1/10W		
R263,264			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R267			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R269,270			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R271			RK73FB2A473J	CHIP R 47K J 1/10W		
R272			RK73FB2A361J	CHIP R 360 J 1/10W		
R275,276			RK73FB2A104J	CHIP R 100K J 1/10W		
R277,278			RK73FB2A563J	CHIP R 56K J 1/10W		
R284			RK73FB2A104J	CHIP R 100K J 1/10W		
R291			RK73FB2A104J	CHIP R 100K J 1/10W		
R305			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R309			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R310			RK73FB2A333J	CHIP R 33K J 1/10W		
R311,312			R92-1866-05	METAL 0.1HM 2W		
R313,314			RK73FB2A333J	CHIP R 33K J 1/10W	KP1Y1	
R315,316			RK73FB2A243J	CHIP R 24K J 1/10W		
R315,316			RK73FB2A243J	CHIP R 24K J 1/10W	M1V	
R315,316			RK73FB2A393J	CHIP R 39K J 1/10W	K1P2Y2	
R317,318			RK73FB2A471J	CHIP R 470 J 1/10W		
R319,320			RK73FB2A333J	CHIP R 33K J 1/10W		
R323,324			RD14NB2E4R7J	RD 4.7 J 1/4W		
R325,326			R92-1866-05	METAL 0.1HM 2W		
R327,328			RK73FB2A333J	CHIP R 33K J 1/10W		
R329,330			RK73FB2A243J	CHIP R 24K J 1/10W	KP1Y1	
R329,330			RK73FB2A243J	CHIP R 24K J 1/10W	M1V	
R329,330			RK73FB2A393J	CHIP R 39K J 1/10W	K1P2Y2	
R331,332			RK73FB2A471J	CHIP R 470 J 1/10W		
R333,334			RK73FB2A333J	CHIP R 33K J 1/10W		
R337,338			RD14NB2E4R7J	RD 4.7 J 1/4W		
R339			R92-1866-05	METAL 0.1HM 2W		
R341			RD14NB2E4R7J	RD 4.7 J 1/4W		
R351,352			RD14NB2E4R7J	RD 4.7 J 1/4W		
R353			RK73FB2A103J	CHIP R 10K J 1/10W		
R354			RK73FB2A223J	CHIP R 22K J 1/10W		
R355			RK73FB2A473J	CHIP R 47K J 1/10W		
R356,357			RK73FB2A104J	CHIP R 100K J 1/10W		
R361			RK73FB2A333J	CHIP R 33K J 1/10W		
R363			RK73FB2A243J	CHIP R 24K J 1/10W	KP1Y1	
R363			RK73FB2A243J	CHIP R 24K J 1/10W	M1V	
R363			RK73FB2A393J	CHIP R 39K J 1/10W	K1P2Y2	
R365			RK73FB2A471J	CHIP R 470 J 1/10W		
R367,368			RK73FB2A242J	CHIP R 2.4K J 1/10W	KP1Y1	
R367,368			RK73FB2A242J	CHIP R 2.4K J 1/10W	M1	
R367,368			RK73FB2A332J	CHIP R 3.3K J 1/10W	K1P2Y2	
R367,368			RK73FB2A332J	CHIP R 3.3K J 1/10W	V	
R369-371			RK73FB2A562J	CHIP R 5.6K J 1/10W	KP1Y1	
R369-371			RK73FB2A562J	CHIP R 5.6K J 1/10W	M1	
R369-371			RK73FB2A622J	CHIP R 6.2K J 1/10W	K1P2Y2	
R369-371			RK73FB2A622J	CHIP R 6.2K J 1/10W	V	
R372			RK73FB2A162J	CHIP R 1.6K J 1/10W		
R373-377			RK73FB2A102J	CHIP R 1.0K J 1/10W		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R521			RK73FB2A103J	CHIP R 10K J 1/10W		
R522			RD14NB2E1R0J	RD 1 J 1/4W		
R534			RK73FB2A101J	CHIP R 100 J 1/10W		
R536			RK73FB2A101J	CHIP R 100 J 1/10W		
R539			RK73FB2A101J	CHIP R 100 J 1/10W		
R542			RK73EB2B101J	CHIP R 100 J 1/8W		
R549			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R555,556			RK73FB2A103J	CHIP R 10K J 1/10W		
R562			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R578			RK73FB2A103J	CHIP R 10K J 1/10W		
R587			RK73FB2A103J	CHIP R 10K J 1/10W		
R592			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R598			RK73FB2A361J	CHIP R 360 J 1/10W		
R599			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R603			RK73FB2A472J	CHIP R 4.7K J 1/10W	K1P2Y2	
W501-503			R92-0670-05	CHIP R 0 OHM		
W504			R92-0679-05	CHIP R 0 OHM	KP1Y1	
W504			R92-0679-05	CHIP R 0 OHM	M1K1P2	
W504			R92-0679-05	CHIP R 0 OHM	Y2	
W505			R92-0670-05	CHIP R 0 OHM	KP1Y1	
W505			R92-0670-05	CHIP R 0 OHM	M1	
K1 -4			S76-0076-05	MAGNETIC RELAY		
S501-507			S70-0031-05	TACT SWITCH		
S509-512			S70-0031-05	TACT SWITCH		
S514-516			S70-0031-05	TACT SWITCH		
S520,521			S70-0031-05	TACT SWITCH		
S517			T99-0602-05	ROTARY ENCODER		
S518,519			T99-0605-05	ROTARY ENCODER		
Δ D1			D4SBL20UF03	DIODE	KP1Y1	
Δ D1			D4SBL20UF03	DIODE	M1V	
Δ D2			D4SBL20UF03	DIODE		
Δ D3 -6			S5688B	DIODE		
Δ D3 -6			1SR139-400	DIODE		
D8 ,9			MTZJ16(B)	ZENER DIODE		
D8 ,9			RD16ES(B2)	ZENER DIODE		
D11			MTZJ7.5(B)	ZENER DIODE	KP1Y1	
D11			MTZJ7.5(B)	ZENER DIODE	M1	
D11			RD7.5JS(B2)	ZENER DIODE	KP1Y1	
D11			RD7.5JS(B2)	ZENER DIODE		
D12 -14			RD7.5JS(B2)	ZENER DIODE	M1	
D12 -14			MTZJ8.2(B)	ZENER DIODE	KP1Y1	
D12 -14			MTZJ8.2(B)	ZENER DIODE	M1V	
D12 -14			RD8.2JS(B2)	ZENER DIODE	KP1Y1	
D12 -14			RD8.2JS(B2)	ZENER DIODE	M1V	
D15 ,16			MTZJ6.8(B)	ZENER DIODE		
D15 ,16			RD6.8ES(B)	ZENER DIODE		
D17			HSS104A	DIODE		
D17			1SS133	DIODE		
D18			MTZJ4.7(B)	ZENER DIODE		
D18			RD4.7ES(B2)	ZENER DIODE		
D19			MTZJ3.3(B)	ZENER DIODE		
D19			RD3.3ES(B2)	ZENER DIODE		
D20 -23			MA111	DIODE		
D24 ,25			MTZJ18(B)	ZENER DIODE		

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PARTS LIST

KRF-V7510DN8010DN/R-208/209

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D24 ,25 D26 ,27 D29 D29 D503			RD18ES(B2) MA111 MA111 MA111 HSS104A	ZENER DIODE DIODE DIODE DIODE DIODE	KP1Y1 M1V	
D503 D504 D504 D504 D504			1SS133 HSS104A HSS104A 1SS133 1SS133	DIODE DIODE DIODE DIODE DIODE	V Y1M1Y2 V Y1M1Y2	
D508,509 D508,509 D510 D510 D510			HSS104A 1SS133 HSS104A HSS104A 1SS133	DIODE DIODE DIODE DIODE DIODE	V Y1M1Y2 V	
D510 D511-522 D511-522 D525 D525			1SS133 HSS104A 1SS133 MTZJ6.2(B) RD6.2JS(B2)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE	Y1M1Y2	
D526 D526 D529-531 D529-531 ED51			HSS104A 1SS133 HSS104A 1SS133 11-MT-116GK	DIODE DIODE DIODE DIODE INDICATOR TUBE		
Δ IC1 Δ IC2 Δ IC3 Δ IC3 Δ IC3			TA7815SB TA79015SB STK407-090K STK411-230D STK411-230D	ANALOGUE IC ANALOGUE IC HYBRID IC HYBRID IC HYBRID IC	K1P2Y2 KP1Y1 M1V	
Δ IC3 Δ IC3 Δ IC4 Δ IC4 Δ IC4		*	STK411-230K STK411-230K STK407-290K STK410-030D STK410-030D	HYBRID IC HYBRID IC HYBRID IC HYBRID IC HYBRID IC	KP1Y1 M1 K1P2Y2 KP1Y1 M1V	
Δ IC4 Δ IC4 Δ IC5 IC6 IC7		*	STK410-030K STK410-030K NJM4580ED TC9164AF TC9163AF	HYBRID IC HYBRID IC ANALOGUE IC MOS-IC MOS-IC	KP1Y1 M1V	
IC8 IC9 IC10-12 IC51 IC52			NJM4565MD M62446FP NJM4565MD CXP82832-141Q X24C02S	IC(OP AMP X2) ANALOGUE IC IC(OP AMP X2) MI-COM IC MEMORY IC	Y1M1Y2	
Δ IC53 Δ Q1 Δ Q2 Δ Q2			S-80740AL-A4 2SC1845(F,E) 2SA1534A(R,S) 2SB1640 2SB1640	IC(VOLTAGE DETECTOR) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	K1P2Y2 KP1Y1 M1V	
Δ Q3 -14 Q15 ,16 Q17 -21 Q23 Q24 ,25			2SC2878(B) 2SA1576A(R,S) 2SC1845(F,E) 2SA992(F,E) 2SC1845(F,E)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		

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PARTS LIST

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Δ Q26 -29 Δ Q31 Q32 Q34 ,35 Q36			DTC123JUA 2SC2631(S,T) 2SA1123(S,T) 2SC1845(F,E) 2SA1535(Q,R)	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q37 Q38 Q39 Q501 Q501			2SC1845(F,E) 2SC3722K(R,S) DTC113ZUA 2SC4116(Y,GR) 2SC4177(L5,L6)	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
Q503 Q503 Q504 Q504 Q504 Q505			2SC4116(Y,GR) 2SC4177(L5,L6) 2SC4116(Y,GR) 2SC4177(L5,L6) 2SC4116(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	K1P2Y2	
Q505			2SC4177(L5,L6)	TRANSISTOR	K1P2Y2	
A501			W02-2625-05	OPTIC RECEIVING MODULE		

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HOW TO READ THE PARTS LIST

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	ABB.	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
VR-208	-	-	P2	-	-	-	-	-	-
VR-209	-	-	P1	-	-	-	-	-	-
KRF-V7510D	-	-	-	-	-	-	-	-	-
KRF-V8010D	-	-	-	-	-	-	-	-	-
MODEL	ABB.	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	U.S.A.	Other area	
VR-208	-	-	-	-	-	-	K1	-	
VR-209	-	-	-	-	-	-	K	-	
KRF-V7510D	-	-	Y2	-	-	-	-	-	-
KRF-V8010D	-	Y1	-	-	-	V	-	M1	-

KRF-V7510D/V8010D/VR-208/209

SPECIFICATIONS

Except U.S.A. and Canada

AUDIO section

Effective power output during STEREO operation

KRF-V8010D	
1kHz, 10% T.H.D., at 8 Ω	140 W + 140 W
KRF-V7510D	
1kHz, 10% T.H.D., at 8 Ω	70 W + 70 W

Rated power output during STEREO operation

KRF-V8010D	
DIN (63 Hz ~ 12.5 kHz, 0.7%, 8 Ω)	110 W + 110 W

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

KRF-V7510D	
DIN (63 Hz ~ 12.5 kHz, 0.7%, 8 Ω)	50 W + 50 W

50 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

Effective power output during SURROUND operation

KRF-V8010D	
FRONT (1kHz, 10% T.H.D. at 8 Ω)	100 W + 100 W
CENTER (1kHz, 10% T.H.D. at 8 Ω)	100 W
SURROUND (1kHz, 10% T.H.D. at 8 Ω)	100 W + 100 W

KRF-V7510D	
FRONT (1kHz, 10% T.H.D. at 8 Ω)	50 W + 50 W
CENTER (1kHz, 10% T.H.D. at 8 Ω)	50 W
SURROUND (1kHz, 10% T.H.D. at 8 Ω)	50 W + 50 W

Total harmonic distortion

KRF-V8010D	0.02%(1 kHz, 50W, 8 Ω)
KRF-V7510D	0.02%(1 kHz, 25W, 8 Ω)

Signal to noise ratio (IHF'66)

PHONO (MM)	75 dB
CD	91 dB

Input sensitivity / impedance

PHONO (MM)	2.5 mV / 27 k Ω
CD	200 mV / 47 k Ω

Output level / impedance

TAPE REC	200 mV / 1 k Ω
PRE OUT (CENTER, SURROUND)	1 V / 1 k Ω
PRE OUT (SUBWOOFER)	1 V / 600 Ω

Tone control

BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)

DIGITAL AUDIO section

Sampling frequency

Input level / impedance / wave length

Optical	-15 dBm ~ -21 dBm, 600 nm ± 30 nm
Coaxial	0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs / outputs

VIDEO (composite)	1 Vp-p / 75 Ω
-------------------------	----------------------

FM tuner section

Tuning frequency range

Usable sensitivity (MONO)

.....	1.6 μ V (75 Ω) / 15.2 dBf (75 kHz DEV., SINAD 30 dB)
-------	--

50dB quieting sensitivity

STEREO	31.6 μ V (75 Ω) / 41.2 dBf
--------------	--

Total harmonic distortion (1 kHz)

MONO	0.6% (65 dBf input)
------------	---------------------

STEREO	0.7% (65 dBf input)
--------------	---------------------

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO	75 dB (65 dBf input)
------------	----------------------

STEREO	68 dB (65 dBf input)
--------------	----------------------

Stereo separation (1 kHz)

Selectivity (± 400 kHz)

Frequency response

AM tuner section

Tuning frequency range

9 kHz step	531 kHz ~ 1,602 kHz
------------------	---------------------

10 kHz step	530 kHz ~ 1,610 kHz
-------------------	---------------------

Usable sensitivity (30% mod., S/N 20 dB)

.....	16 μ V / (600 μ V/m)
-------	------------------------------

Signal to noise ratio (30% mod. 1 mV input)

GENERAL

Power consumption

KRF-V8010D	280 W
------------------	-------

KRF-V7510D	210 W
------------------	-------

AC outlet

SWITCHED	2 (total 150 W max.)
----------------	----------------------

Dimensions

W : 440 mm

H : 144 mm

D : 400 mm

Weight (Net)

KRF-V8010D	9.5 kg
------------------	--------

KRF-V7510D	7.7 kg
------------------	--------



SPECIFICATIONS

For U.S.A. and Canada

AUDIO section

Rated power output during STEREO operation

VR-209

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

VR-208

50 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

Effective power output during SURROUND operation

VR-209

FRONT (1kHz, 0.7% T.H.D. at 8 Ω) 100 W + 100 W
 CENTER (1kHz, 0.7% T.H.D. at 8 Ω) 100 W
 SURROUND (1kHz, 0.7% T.H.D. at 8 Ω) 100 W + 100 W

VR-208

FRONT (1kHz, 0.7% T.H.D. at 8 Ω) 50 W + 50 W
 CENTER (1kHz, 0.7% T.H.D. at 8 Ω) 50 W
 SURROUND (1kHz, 0.7% T.H.D. at 8 Ω) 50 W + 50 W

Total harmonic distortion

VR-209 0.02%(1 kHz, 50W, 8 Ω)
 VR-208 0.02%(1 kHz, 25W, 8 Ω)

Signal to noise ratio (IHF'66)

PHONO (MM) 75 dB
 CD 91 dB

Input sensitivity / impedance

PHONO (MM) 2.5 mV / 27 k Ω
 CD 200 mV / 47 k Ω

Output level / impedance

TAPE REC 200 mV / 1 k Ω
 PRE OUT (CENTER, SURROUND) 1 V / 1 k Ω
 PRE OUT (SUBWOOFER) 1 V / 600 Ω

Tone control

BASS ± 10 dB (at 100 Hz)
 TREBLE ± 10 dB (at 10 kHz)

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz

Input level / impedance / wave length

Optical -15 dBm ~ -21 dBm, 600 nm ± 30 nm
 Coaxial 0.5 Vp-p / 75 Ω

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O. BOX 55-2791, Piso 6 plaza Chase, Cl. 47 y Aquilino de la Guardia Panama, Republic de Panama

KENWOOD ELECTRONICS BRASIL LTDA.

Av Indianópolis, 628, 04062-001 Planalto Paullista São Paulo-SP-Brasil

KENWOOD ELECTRONICS U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB., United Kingdom

KENWOOD ELECTRONICS BELGUM N.V.

Meachelsesteenweg 418, B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

VIDEO section

VIDEO inputs / outputs

VIDEO (composite) 1 Vp-p / 75 Ω

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz

Usable sensitivity (MONO)

..... 1.6 μ V (75 Ω) / 15.2 dBf (75 kHz DEV., SINAD 30 dB)

50dB quieting sensitivity

STEREO 31.6 μ V (75 Ω) / 41.2 dBf

Total harmonic distortion (1 kHz)

MONO 0.6% (65 dBf input)

STEREO 0.7% (65 dBf input)

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO 75 dB (65 dBf input)

STEREO 68 dB (65 dBf input)

Stereo separation (1 kHz) 38 dB

Selectivity (± 400 kHz) 70 dB

Frequency response 30 Hz ~ 15kHz, +0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range

10 kHz step 530 kHz ~ 1,700 kHz

Usable sensitivity (30% mod., S/N 20 dB)

..... 16 μ V / (600 μ V/m)

Signal to noise ratio (30% mod. 1 mV input) 50 dB

GENERAL

Power consumption 2.2 A

AC outlet

SWITCHED 2 (total 150 W, 1.25 A max.)

Dimensions W : 440 mm (17-5/16")

H : 144 mm (5-11/16")

D : 400 mm (15-3/4")

Weight (Net)

VR-209 8.7 kg (19.2 lb)

VR-208 7.7 kg (17.0 lb)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

KENWOOD ELECTRONICS ITALIA S.p.A.

Via G. Sirtori, 7/9 20129, Milano, Italy

KENWOOD IBÉRICA S.A.

Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

(A.C.N. 001499 074)

P.O. Box 504, 8 Figtreet Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Unit 3712-3724, Level 37, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T., Hong Kong

KENWOOD ELECTRONICS GULF FZE

P.O. Box 61318, Jebel Ali, Dubai, U.A.E.

KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane #02-02, KENWOOD Building, Singapore, 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD.

#4.01 Level 4, Wisma Academy Lot 4A, Jalan 19/1 46300 Petaling Jaya Selangor Darul Ehsan Malaysia

KENWOOD ELECTRONICS (THAILAND) CO., LTD.

573/111 Soi Ramkhamhaeng 39, Ramkhamhaeng Road, Wangthonglang, Bangkok, Bangkok 10301 Thailand